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1989
ALBERTA HOUSE COST COMPARISON STUDY

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EDMONTON

24 Unit
Walk-up Apartment

Alberta
MUNICIPAL AFFAIRS
Housing Division

1989 ALBERTA HOUSE COST COMPARISON STUDY

WALK - UP APARTMENT

SEPTEMBER 1989

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ISSN 0822-3912

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PREFACE

The main purpose of the 1989 Alberta House Cost Comparison Study was to provide estimates of the hard construction costs of a prototypical single-detached dwelling and a 24 unit walk-up apartment in ten urban centres in this Province.

The study also compared 1989 residential construction costs with those of previous years in the selected urban centres. Most emphasis was given to a comparison of 1989 with 1988 costs and the study included an analysis of these differences.

The 1989 study was carried out by Helyar & Associates and is documented in three reports:

1989 Alberta House Cost Comparison Study : Executive Summary
1989 Alberta House Cost Comparison Study : Single-Detached Dwelling
1989 Alberta House Cost Comparison Study : Walk-Up Apartment

Additional copies of any of these reports can be ordered from :

ALBERTA MUNICIPAL AFFAIRS
Housing Division
Research and Development Section
16th Floor, City Centre
10155 - 102 Street
Edmonton, Alberta
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1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 Objectives

The objectives of the 1989 Alberta House Cost Comparison Study were:

1. To determine 1989 hard residential construction costs in selected urban centres in Alberta.
2. To determine reasons for differences in residential construction costs in the selected centres.
3. To carry out detailed comparisons of 1989 residential construction costs with 1988 residential construction costs in the selected centres.
4. To determine and comment on residential construction cost trends over the last nine years in the selected centres.

1.2 Scope of Work

The 1989 Alberta House Cost Comparison Study examined the construction costs of a typical single-detached dwelling and a 24 unit walk-up apartment building.

The study has been documented in three reports : an Executive Summary, a report on a typical single-detached dwelling and a report on a walk-up apartment. This report deals with the walk-up apartment.

The study examines building construction costs in the following centres:

1. Edmonton
2. Calgary
3. Red Deer
4. Fort McMurray
5. Grande Prairie
6. Hinton
7. Lethbridge
8. Medicine Hat
9. Lloydminster
10. Peace River

1.0 INTRODUCTION

1.2 Scope of Work (continued)

The cost analysis of both the single-detached dwelling and the walk-up apartment examined the building construction cost differences between each of the centres and identified the reasons for those differences with reference to such factors as :

a) material costs,
b) labour costs,
c) building features and inclusions,
d) construction specifications and standards and
e) other factors as appropriate.

The cost estimates of the walk-up apartment for each centre include all structural, finishing, mechanical and electrical work as shown on the drawings and included in the specifications and also include allowances for site overhead and contractors' overhead and profit. The cost estimates exclude the following items:

a) cost of land and site clearance,
b) site servicing costs,
c) site development costs,
d) design fees and expenses,
e) legal fees and expenses and
f) marketing and real estate financing costs.

1.0 INTRODUCTION

1.3 Drawings

The drawings used in the study for the walk-up apartment include :

1) Site plan
2) Foundation plan
3) Basement floor plan
4) Main floor plan
5) 2nd & 3rd floor plan
6) Building elevations
7) Section and details
8) Basement floor plan - Mechanical Layout
9) Main floor plan - Mechanical Layout
10) 2nd & 3rd floor plan - Mechanical Layout
11) Basement floor plan - Electrical Layout
12) Main floor plan - Electrical Layout
13) 2nd & 3rd floor plan - Electrical Layout

Reduced copies of these drawings are included in the Appendix.

1.4 Approach

The building construction costs are detailed in the report under the headings of labour and material/equipment costs. Labour rates used in the report are either those established by the trade union concerned, or by the market where trade union rates do not apply. In most cases, a realistic assessment of labour rates has been established by examining the circumstances of the particular sub-trade within the building industry. Material prices have been evaluated from building materials suppliers' lists. Average discounts are applied in order to establish a realistic market price for the materials to contractors.

1.4 Approach (continued)

The cost data are assembled by sub-trade and presented in 23 trade categories. Site overhead and general contractors' office overhead and profit are shown separately to indicate the site costs. The sub-trade operations are combined within each trade category in order to reflect current estimating practice within the industry.

A computer program was developed in order to collate and present the cost data which were assembled for the ten centres. The quantities and trade descriptions were initially established for the prototypical house and apartment building. The cost data applicable to the relevant quantities and trade descriptions for each centre were then processed by computer.

The cost effects of market forces and building industry conditions are addressed in the 'Commentary' section of this report.

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TAPLE WA. 1 : Total Building Costs

ITEM	EDMONTON		CALGARY		RED DEER		FORT McMURRAY		GRANDE PRAIRIE		HINTON		LETHBRIDGE		MEDICINE HAT		LLOYDMINSTER		PEACE RIVER	
ELEMENT	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%	TOTAL $	%
Labour	277,437	35.5	285,392	36.0	291,534	36.2	315,371	36.0	309,972	36.0	306,812	36.1	280,749	35.1	286,400	35.2	281,390	34.2	314,612	35.8
Material	503,490	64.5	507,013	64.0	513,211	63.8	559,754	64.0	551,813	64.0	542,823	63.9	519,219	64.9	526,137	64.8	541,646	65.8	564,677	64.2
Total 1989	780,927	100.0	792,405	100.0	804,745	100.0	875,125	100.0	861,785	100.0	849,635	100.0	799,968	100.0	812,537	100.0	823,036	100.0	879,289	100.0
Cost per m2	$420.53		$426.71		$433.36		$471.26		$464.07		$457.53		$430.79		$437.55		$443.21		$473.50	
Cost per SF	$39.07		$39.64		$40.26		$43.78		$43.11		$42.51		$40.02		$40.65		$41.18		$43.99	
Cost per Apt. 1989 $	$32,539		$33,017		$33,531		$36,464		$35,908		$35,401		$33,332		$33,856		$34,293		$36,637	
Total 1988 $	725,982		744,420		747,455		847,835		820,045		799,979		753,539		758,448		790,103		837,124	
Cost per Apt. 1988 $	30,249		31,018		31,144		35,326		34,169		33,332		31,397		31,602		32,921		34,880	
Changes From 1988	7.6%		6.4%		7.7%		3.2%		5.1%		6.2%		6.2%		7.1%		4.2%		5.0%	

Note : Several total figures may appear in this report as not being added correctly. This is due to the rounding effect in the calculations of the detail costing for each centre.

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 2 : Comparative Costs Ratios *

LOCATION	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	HINTON	LETHBRIDGE	MEDICINE HAT	LLOYD-MINSTER	PEACE RIVER
EDMONTON	1.00	1.01	1.03	1.12	1.10	1.09	1.02	1.04	1.05	1.13
CALGARY	0.99	1.00	1.02	1.10	1.09	1.07	1.01	1.03	1.04	1.11
RED DEER	0.97	0.98	1.00	1.09	1.07	1.06	0.99	1.01	1.02	1.08
FORT McMURRAY	0.89	0.91	0.92	1.00	0.98	0.97	0.91	0.93	0.94	1.00
GRANDE PRAIRIE	0.91	0.92	0.93	1.02	1.00	0.99	0.93	0.94	0.96	1.02
HINTON	0.92	0.93	0.95	1.03	1.01	1.00	0.94	0.96	0.97	1.03
LETHBRIDGE	0.98	0.99	1.01	1.09	1.08	1.06	1.00	1.02	1.03	1.10
MEDICINE HAT	0.96	0.98	0.99	1.08	1.06	1.05	0.98	1.00	1.04	1.08
LLOYD-MINSTER	0.95	0.96	0.98	1.06	1.05	1.03	0.97	0.99	1.00	1.07
PEACE RIVER	0.89	0.90	0.92	1.00	0.98	0.97	0.91	0.92	0.94	1.00

* Entries refer to the ratio of the price for a city in the top row of the table divided by a price for the city listed in the column. For example, Red Deer costs are 1.03 times Edmonton costs.

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 3 : Comparative Costs Table 1988 - 1989

LOCATION	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	HINTON	LETHBRIDGE	MEDICINE HAT	LLOYD-MINSTER	PEACE RIVER
Labour Cost										
1989	$277,437	$285,392	$291,534	$315,371	$309,972	$306,812	$280,749	$286,400	$281,390	$314,612
1988	$253,906	$265,108	$264,349	$308,027	$296,731	$282,472	$266,530	$269,116	$281,377	$301,150
Difference	$23,531	$20,284	$27,185	$7,344	$13,241	$24,340	$14,219	$17,284	$13	$13,462
% Difference	9.3%	7.7%	10.3%	2.4%	4.5%	8.6%	5.3%	6.4%	0.0%	4.5%
Mat'l Cost										
1989	$503,490	$507,013	$513,211	$559,754	$551,813	$542,823	$519,219	$526,137	$541,646	$564,677
1988	$472,076	$479,312	$483,106	$539,808	$523,314	$517,507	$487,009	$489,332	$508,726	$535,974
Difference	$31,414	$27,701	$30,105	$19,946	$28,499	$25,316	$32,210	$36,805	$32,920	$28,703
% Difference	6.7%	5.8%	6.2%	3.7%	5.4%	4.9%	6.6%	7.5%	6.5%	5.4%
Total Cost										
1989	$780,927	$792,405	$804,745	$875,125	$861,785	$849,635	$799,968	$812,537	$823,036	$879,289
1988	$725,982	$744,420	$747,455	$847,835	$820,045	$799,979	$753,539	$758,448	$790,103	$837,124
Difference	$54,945	$47,985	$57,290	$27,290	$41,740	$49,656	$46,429	$54,089	$32,933	$42,165
% Difference	7.6%	6.4%	7.7%	3.2%	5.1%	6.2%	6.2%	7.1%	4.2%	5.0%

2.0 SUMMARY OF FINDINGS FOR THE WALK - UP APARTMENT

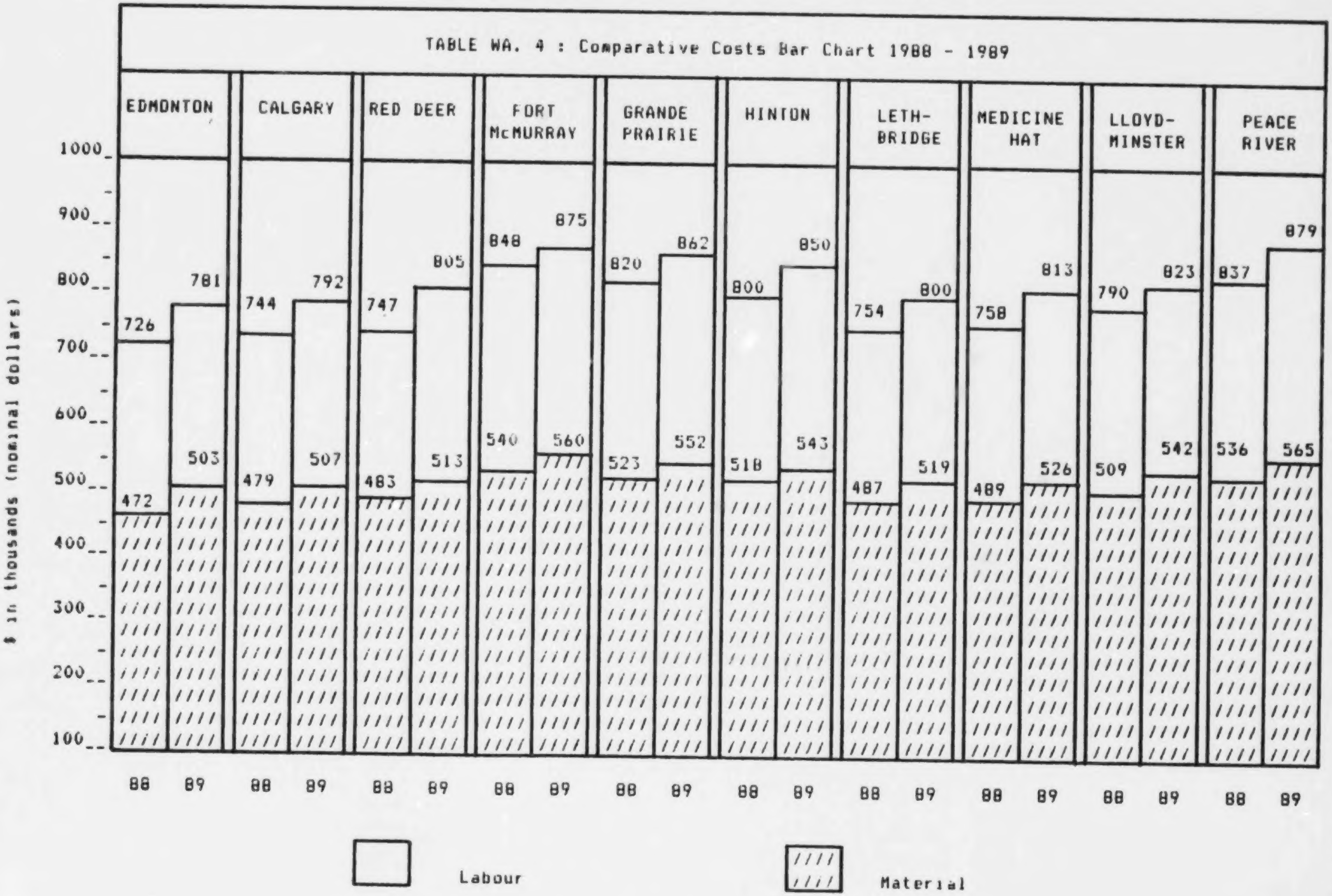


TABLE WA. 4 : Comparative Costs Bar Chart 1988 - 1989

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

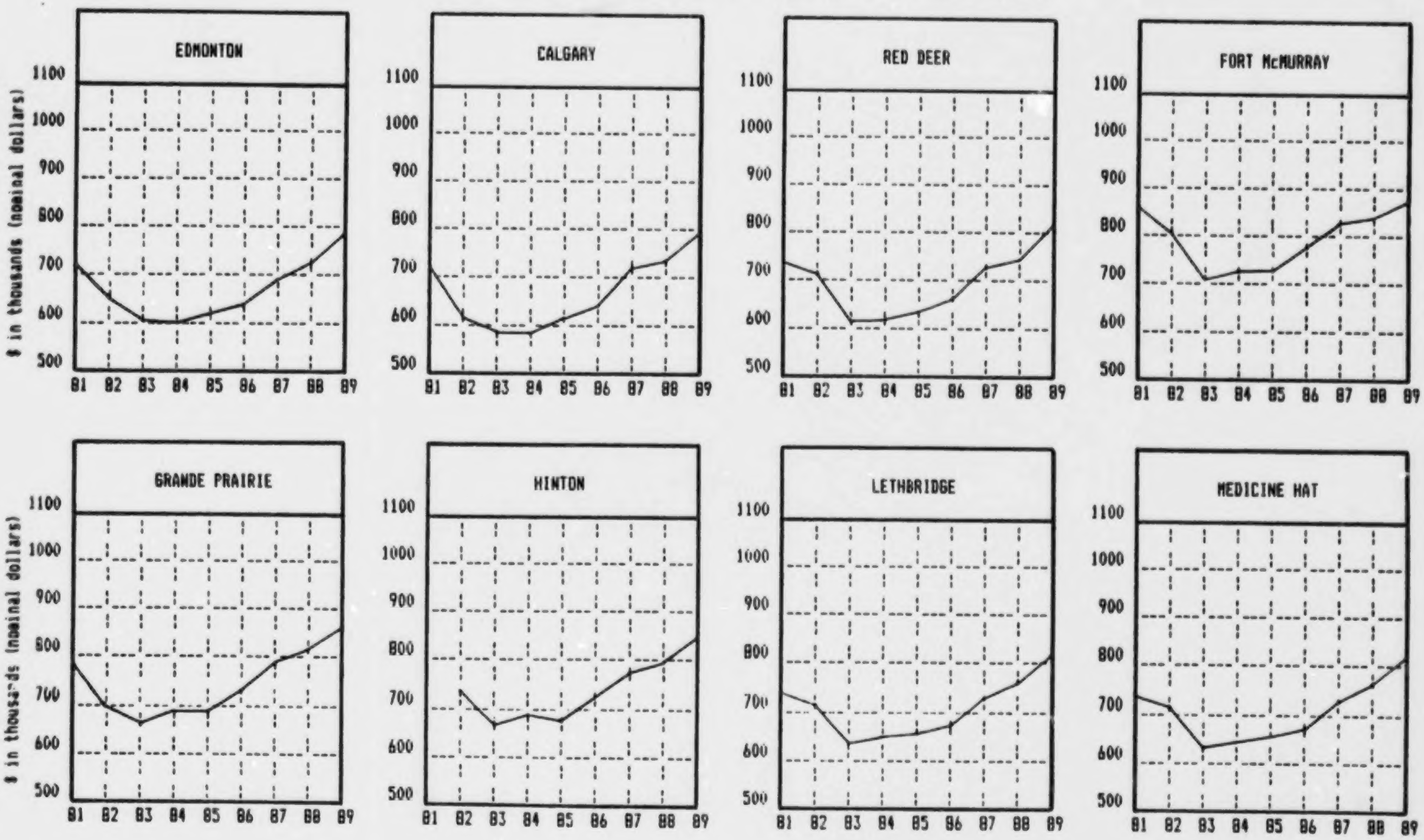
TABLE WA. 5 : Comparative Total Building Costs 1981 -1989 (nominal dollars)

YEAR	AVERAGE	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	* HINTON	LETHBRIDGE	MEDICINE HAT	** LLOYD-MINSTER	*** PEACE RIVER
1981	$756,703	$714,492	$719,003	$733,211	$861,728	$784,409	-	$740,084	$743,992	-	-
1982	$712,232	$665,273	$627,844	$710,485	$805,134	$700,436	$744,686	$720,280	$723,716	-	-
1983	$644,459	$603,046	$592,174	$623,852	$712,262	$669,574	$674,046	$632,872	$647,845	-	-
1984	$658,084	$600,039	$591,861	$624,342	$731,995	$694,794	$693,688	$632,121	$652,014	$701,901	-
1985	$669,882	$625,974	$617,049	$644,466	$734,420	$695,480	$690,526	$651,143	$655,347	$714,537	-
1986	$699,967	$648,534	$647,135	$665,963	$778,075	$742,644	$731,043	$679,312	$676,195	$730,802	-
1987	$754,246	$693,517	$724,502	$734,041	$830,902	$791,155	$776,523	$728,692	$731,429	$777,454	-
1988	$782,493	$725,982	$744,420	$747,455	$847,835	$820,045	$799,979	$753,539	$758,448	$790,103	$837,124
1989	$827,945	$780,927	$792,405	$804,745	$875,125	$861,785	$849,635	$799,968	$812,537	$823,036	$879,289

Notes : * Hinton was not included in the 1981 study
** Lloydminster was not included in the 1981 through 1983 studies
*** Peace River was not included in the 1981 through 1987 studies

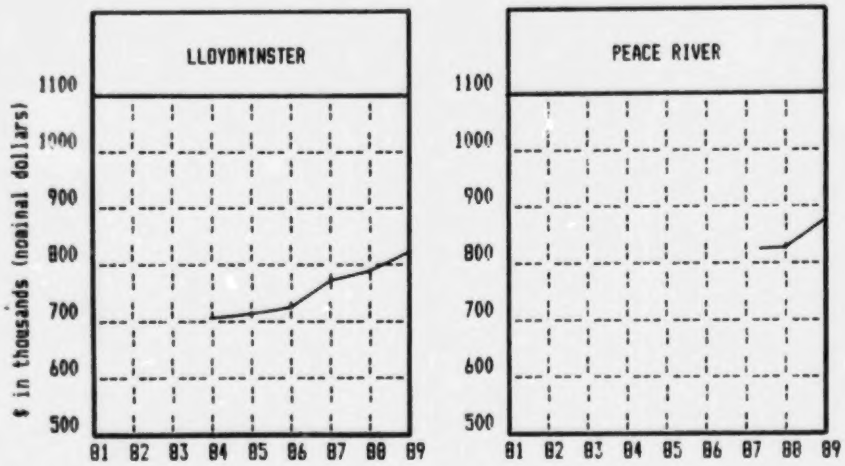
2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 6 : Comparative Total Costs Graphs 1981 -1989 (nominal dollars)



2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 6 : Comparative Total Costs Graphs 1981 -1989 (nominal dollars) (cont'd)



2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 7 : Comparative Costs per Apartment Unit 1981 -1989 (nominal dollars)

YEAR	AVERAGE	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	* HINTON	LETHBRIDGE	MEDICINE HAT	** LLOYD-MINSTER	*** PEACE RIVER
1981	$31,529	$29,771	$29,958	$30,550	$35,905	$32,684	-	$30,837	$31,000	-	-
1982	$29,677	$27,720	$26,160	$29,604	$33,547	$29,185	$31,029	$30,012	$30,155	-	-
1983	$26,853	$25,127	$24,674	$25,994	$29,678	$27,899	$28,085	$26,370	$26,994	-	-
1984	$27,420	$25,002	$24,661	$26,014	$30,500	$28,950	$28,904	$26,338	$27,167	$29,246	-
1985	$27,912	$26,082	$25,710	$26,853	$30,601	$28,978	$28,772	$27,131	$27,306	$29,772	-
1986	$29,165	$27,022	$26,964	$27,748	$32,420	$30,944	$30,460	$28,305	$28,175	$30,450	-
1987	$31,427	$28,897	$30,188	$30,585	$34,621	$32,965	$32,355	$30,362	$30,476	$32,394	-
1988	$32,604	$30,249	$31,018	$31,144	$35,326	$34,169	$33,332	$31,397	$31,602	$32,921	$34,880
1989	$34,498	$32,539	$33,017	$33,531	$36,464	$35,908	$35,401	$33,332	$33,856	$34,293	$36,637

Notes : * Hinton was not included in the 1981 study
** Lloydminster was not included in the 1981 through 1983 studies
*** Peace River was not included in the 1981 through 1987 studies

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 8 : Comparative Apartment Unit Costs Graphs 1981 -1989 (nominal dollars)

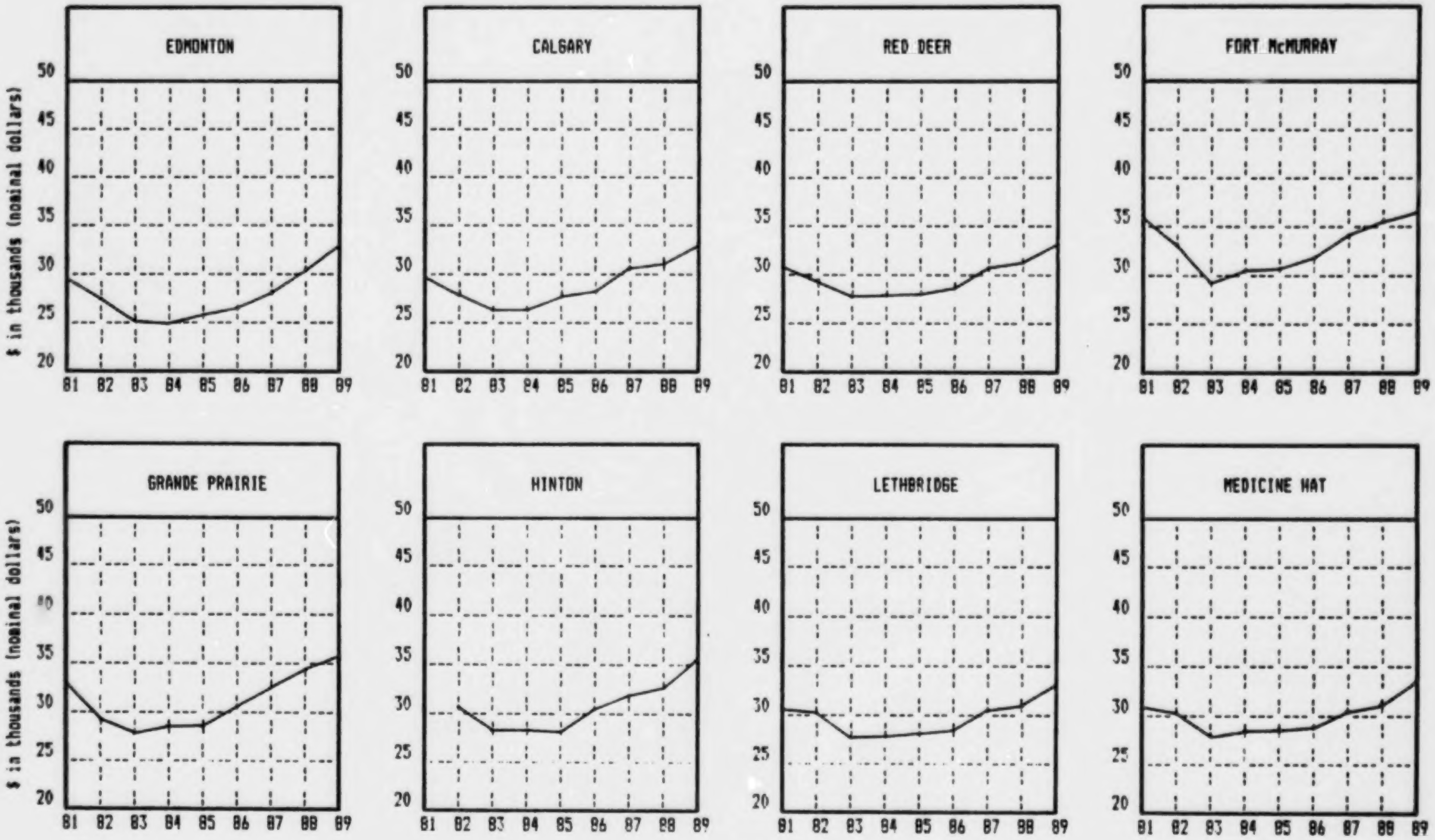
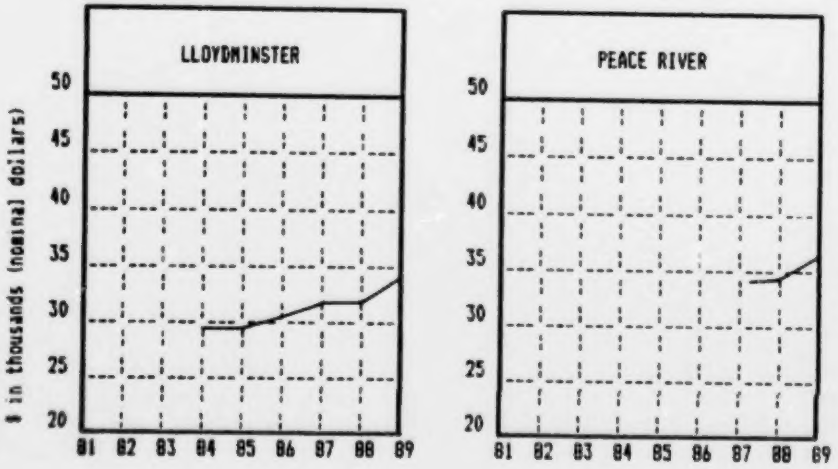


TABLE WA. 8 : Comparative Apartment Unit Costs Graphs 1981 -1989 (nominal dollars) (cont'd)



2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 9 : Comparative Costs per Apartment Unit 1981 -1989 (inflation adjusted dollars) *

YEAR	AVERAGE	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	** HINTON	LETHBRIDGE	MEDICINE HAT	*** LLOYD-MINSTER	**** PEACE RIVER
1981	$45,208	$42,647	$42,997	$43,805	$51,435	$46,820	-	$44,259	$44,492	-	-
1982	$38,489	$35,922	$33,965	$38,400	$43,473	$37,820	$40,210	$38,966	$39,152	-	-
1983	$33,075	$30,925	$30,424	$32,022	$36,525	$34,336	$34,565	$32,516	$33,285	-	-
1984	$32,963	$30,034	$29,682	$31,280	$36,640	$34,778	$34,722	$31,700	$32,698	$35,132	-
1985	$32,644	$30,482	$30,105	$31,414	$35,763	$33,867	$33,626	$31,769	$31,973	$34,794	-
1986	$32,822	$30,389	$30,380	$31,234	$36,458	$34,799	$34,254	$31,891	$31,745	$34,244	-
1987	$34,045	$31,282	$32,742	$33,141	$37,479	$35,686	$35,026	$32,930	$33,054	$35,068	-
1988	$34,289	$31,792	$32,662	$32,763	$37,128	$35,912	$35,032	$33,061	$33,277	$34,600	$36,659
1989	$34,498	$32,539	$33,017	$33,531	$36,464	$35,908	$35,401	$33,332	$33,856	$34,293	$36,637

Notes : * 1. Expressed in inflation adjusted, real 1989 dollars
2. Inflation adjustments have been based on the Consumer Price Index for Edmonton and Calgary
** Hinton was not included in the 1981 study
*** Lloydminster was not included in the 1981 through 1983 studies
**** Peace River was not included in the 1981 through 1987 studies

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 10 : Comparative Apartment Unit Costs Graphs 1981 -1989 (inflation adjusted dollars)

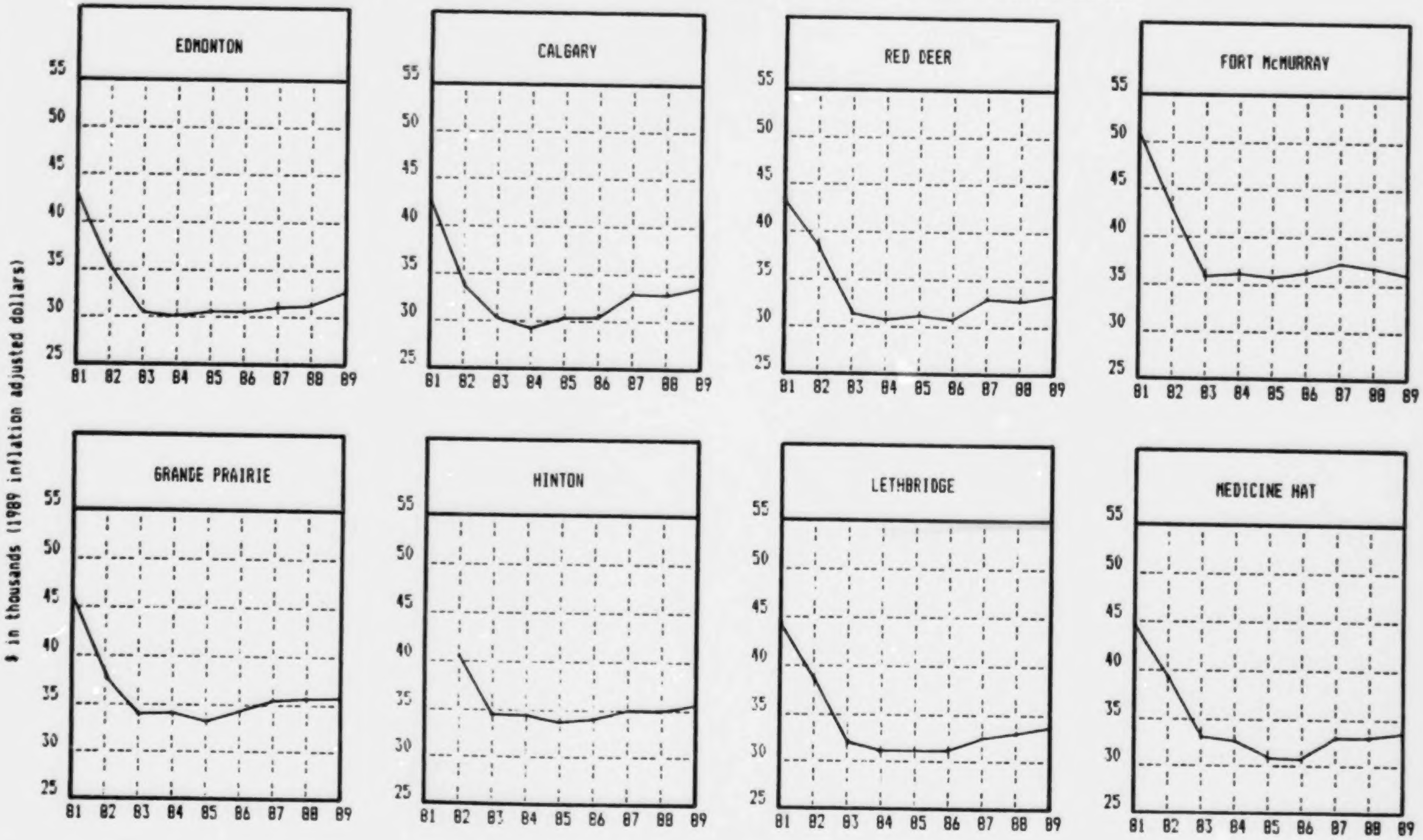
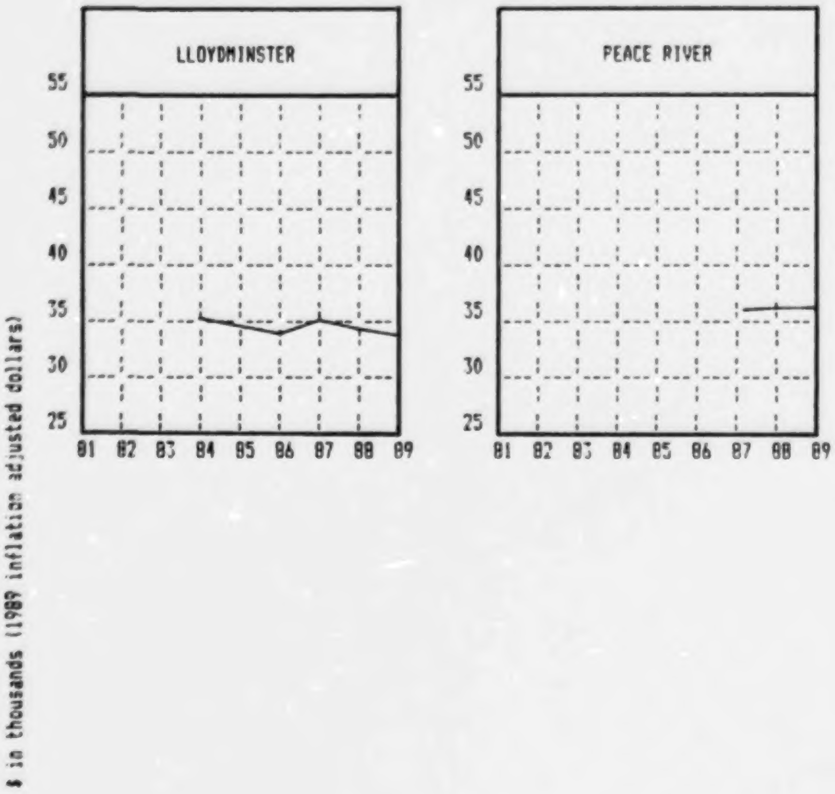


TABLE WA. 10 : Comparative Apartment Unit Costs Graphs 1981 -1989 (inflation adjusted dollars) (cont'd)



2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 11 : Comparative Costs per Square Foot of Gross Floor Area 1981 -1989 (nominal dollars)

YEAR	AVERAGE	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	* HINTON	LETHBRIDGE	MEDICINE HAT	** LLOYD-MINSTER	*** PEACE RIVER
1981	$37.86	$35.75	$35.97	$36.68	$43.11	$39.24	-	$37.03	$37.22	-	-
1982	$35.63	$33.28	$31.41	$35.54	$40.28	$35.04	$37.26	$36.03	$36.21	-	-
1983	$32.24	$30.17	$29.63	$31.21	$35.63	$33.50	$33.72	$31.66	$32.41	-	-
1984	$32.92	$30.02	$29.61	$31.23	$36.62	$34.76	$34.70	$31.62	$32.62	$35.11	-
1985	$33.51	$31.32	$30.87	$32.24	$36.74	$34.79	$34.55	$32.58	$32.79	$35.75	-
1986	$35.02	$32.44	$32.37	$33.32	$38.93	$37.15	$36.57	$33.98	$33.83	$36.56	-
1987	$37.73	$34.70	$36.25	$36.72	$41.57	$39.58	$38.85	$36.46	$36.59	$38.89	-
1988	$39.15	$36.32	$37.24	$37.39	$42.42	$41.03	$40.02	$37.70	$37.94	$39.53	$41.88
1989	$41.42	$39.07	$39.64	$40.26	$43.78	$43.11	$42.51	$40.02	$40.65	$41.18	$43.99

Notes :
- * Hinton was not included in the 1981 study
- ** Lloydminster was not included in the 1981 through 1983 studies
- *** Peace River was not included in the 1981 through 1987 studies

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 12 : Comparative Costs per Square Foot of Gross Floor Area 1981 -1989 (inflation adjusted dollars) *

YEAR	AVERAGE	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	** HINTON	LETHBRIDGE	MEDICINE HAT	*** LLOYD-MINSTER	**** PEACE RIVER
1981	$54.28	$51.20	$51.62	$52.59	$61.75	$56.21	-	$53.14	$53.42	-	-
1982	$46.21	$43.13	$40.78	$46.10	$52.19	$45.41	$48.27	$46.78	$47.00	-	-
1983	$39.71	$37.13	$36.53	$38.44	$43.85	$41.22	$41.50	$39.04	$39.96	-	-
1984	$39.58	$36.06	$35.64	$37.55	$43.99	$41.75	$41.69	$38.06	$39.26	$42.18	-
1985	$39.19	$36.60	$36.14	$37.71	$42.94	$40.66	$40.37	$38.14	$38.39	$41.77	-
1986	$39.40	$36.48	$36.47	$37.50	$43.77	$41.78	$41.12	$38.29	$38.11	$41.11	-
1987	$40.87	$37.56	$39.31	$39.79	$45.00	$42.84	$42.05	$39.53	$39.68	$42.10	-
1988	$41.16	$38.17	$39.21	$39.33	$44.57	$43.11	$42.06	$39.69	$39.95	$41.54	$44.01
1989	$41.42	$39.07	$39.64	$40.26	$43.78	$43.11	$42.51	$40.02	$40.65	$41.18	$43.99

Notes : * 1. Expressed in inflation adjusted, real 1989 dollars
2. Inflation adjustments have been based on the Consumer Price Index for Edmonton and Calgary
** Hinton was not included in the 1981 study
*** Lloydminster was not included in the 1981 through 1983 studies
**** Peace River was not included in the 1981 through 1987 studies

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 13 : Trade Division Cost Summaries

LOCATION	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	HINTON	LETHBRIDGE	MEDICINE HAT	LLOYD-MINSTER	PEACE RIVER
Divisions										
1. Excavation	2,901	4,597	3,651	4,233	3,603	2,980	3,742	3,302	3,686	3,625
2. Concrete	20,548	19,243	20,875	24,555	23,927	24,287	20,100	21,848	20,434	22,166
3. Dampproofing	794	953	998	1,305	1,202	993	967	951	884	1,204
4. Siding	15,767	15,724	16,541	19,426	19,522	19,074	18,242	18,516	18,508	20,699
5. Roofing	26,476	27,740	27,766	34,079	28,746	28,305	26,562	27,343	28,380	29,270
6. Rough Carpentry	152,262	154,124	148,179	174,798	165,343	161,939	155,559	150,931	151,989	162,122
7. Finish Carpentry	11,631	12,338	11,195	11,826	11,302	10,635	10,989	10,987	10,824	11,945
8. Windows and Glazing	27,346	26,097	28,199	31,983	29,209	28,464	28,235	28,595	28,109	30,646
9. Sealants	921	937	916	926	945	916	886	909	877	945
10. Doors	44,357	40,646	44,578	44,926	48,023	46,610	44,460	43,539	45,931	49,551
11. Hardware	3,992	4,140	4,046	4,164	4,162	4,062	4,115	4,129	3,913	4,198
12. Ceramic Tiling	5,802	5,782	5,759	6,652	6,669	6,271	6,342	6,663	7,449	6,975
SUB - TOTAL	$312,797	$312,321	$312,703	$358,873	$342,653	$334,536	$320,199	$317,713	$320,984	$343,346

2.0 SUMMARY OF FINDINGS FOR THE WALK-UP APARTMENT

TABLE WA. 13 : Trade Division Cost Summaries (cont'd)

LOCATION	EDMONTON	CALGARY	RED DEER	FORT McMURRAY	GRANDE PRAIRIE	HINTON	LETHBRIDGE	MEDICINE HAT	LLOYD-MINSTER	PEACE RIVER
Divisions										
13. Wallboard	58,703	59,050	60,346	69,865	63,296	68,872	61,558	62,691	65,671	68,023
14. Flooring	50,720	51,459	51,968	52,922	53,872	52,268	52,428	54,015	50,840	55,034
15. Painting	21,993	21,184	23,831	23,779	24,337	24,844	24,898	25,467	22,971	24,305
16. Fittings	49,707	49,376	52,722	56,735	52,081	51,476	54,217	53,251	49,546	56,856
17. Specialties	18,743	18,883	18,863	19,479	20,062	19,209	18,592	19,432	18,642	20,439
18. Appliances	34,676	34,676	34,368	35,512	35,572	34,926	35,148	35,208	34,574	36,958
19. Plumbing	67,200	68,880	68,760	69,720	77,712	71,568	66,552	68,616	64,320	79,584
20. Heating	32,760	36,120	39,240	43,560	44,424	41,712	29,856	33,888	45,456	45,120
21. Ventilation	8,280	8,376	8,040	9,480	9,792	9,864	9,072	9,144	9,552	9,864
22. Fire Protection	2,460	2,328	2,304	2,736	2,832	2,880	2,328	2,400	2,880	2,928
23. Electrical	43,560	47,280	50,760	55,320	58,344	60,048	47,808	52,536	62,040	60,048
24. Site Overhead	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Subtotals - 1-24	$751,599	$759,933	$773,905	$847,981	$834,977	$822,203	$772,656	$784,361	$797,476	$852,505
25. Gnrl. Contr's Ovhd.& Profit	29,328	32,472	30,840	27,144	26,808	27,432	27,312	28,176	25,560	26,784
TOTAL	$780,927	$792,405	$804,745	$875,125	$861,785	$849,635	$799,968	$812,537	$823,036	$879,289

3.0 COMMENTARY

3.0 COMMENTARY

3.1 General

Alberta's economy has maintained a modest rate of growth during 1989. There has been an increased demand for housing in certain centres due to the influx of people from other Provinces and the unemployment rate was down in comparison to the previous year. Province-wide, there has been an increase in housing starts indicating a general optimism for an improving economy. Activity in the oil business has been very poor but natural gas, timber and pulp and paper sectors continue to pick up and major impacts from proposed projects will be realised over the next few years. Most areas of the Province have seen upward movement of housing prices although in smaller communities, this was to a lesser degree. Lot prices are up in most of the centres studied due to the lack of lower priced lots.

Apartment construction activity, which was greater than in previous years, was generally confined to the Edmonton - Calgary corridor with lesser activity in Lethbridge and Medicine Hat.

With apartment vacancy rates dropping and the rental market improving in 1989, costs for apartment construction increased in all centres by an average of 5.9%. The greatest increase was 7.7% in Red Deer and the smallest increase was 3.2% in Fort McMurray.

The graphic presentation of apartment construction costs in Table WA.8 indicates that average costs are higher than 1981 costs when expressed in nominal dollars (from $ 31,529 in 1981 to $ 34,498 in 1989 or 9.4% more). However, expressed in inflation adjusted, real 1989 dollars, as shown in table WA.10, the total average costs are 23.7% less than the 1981 costs, from $ 45,208 in 1981 to $ 34,498 in 1989.

Increases in labour costs for apartment construction were greatest in Edmonton and in Red Deer due to shortages of skilled labour in these centres. Other centres have experienced some skilled labour shortages, but to a much lesser degree.

3.0 COMMENTARY

3.1 General (continued)

Material prices for the walk-up apartment building have increased marginally in all centres. Material price increases varied according to the type of material and centre. One of the largest increases was on manufactured boarding which increased between 15% and 20%. Timber generally increased between 5% and 10%. The increases in timber and manufactured boarding prices can be attributed to bouyant markets. These increases were lowest in Fort McMurray due to lack of demand and in Grande Prairie, Hinton and Peace River because of their proximity to the source of supply. Whilst there has been no increase in concrete prices anywhere, they continue to vary considerably from centre to centre, due to demand, location and availability of aggregates and cement. Drywall and insulation prices fluctuated but have stayed in the same range. In most centres the majority of price increases were passed on to consumers; in previous years, builders have absorbed some increases to remain competitive in the marketplace.

No significant changes were observed as a result of building practice changes or changes in standard materials used by the majority of builders. However, it should be noted that there is a trend away from basic appliances in apartments. In this report, the refrigerator has been upgraded from a manual defrost .37 m3 (13 cu. ft.) model to a frost free .42 m3 (15 cu. ft.) model.

3.0 COMMENTARY

3.2 Highlights by Centre

Edmonton :

The 1989 cost of the typical walk-up apartment in Edmonton is 1.5% lower than its Calgary counterpart and 7.6% higher than the 1988 Edmonton cost. Expressed in nominal dollars, the total cost is 9.3% higher than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 23.7% less than the 1981 cost. The overall increase in labour cost was 9.3% and the increase in material prices was 6.7% compared with 1988.

Over the past year Edmonton has seen steady economic growth and a reduced vacancy rate. The local factors which account for the cost differences between Edmonton and other centres are an in-migration of people, pent-up demand, land shortage and to a certain extent, a catching up with Calgary prices. The reasons for the changes within the centre from the previous year are more optimism about the local economy, improved demand for houses and labour shortages.

Calgary :

The 1989 cost of the typical walk-up apartment in Calgary is 1.5% higher than its Edmonton counterpart and 6.4% higher than the 1988 Calgary cost. Expressed in nominal dollars, the total cost is 10.2% more than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 23.2% less than the 1981 cost. The overall increase in labour and material prices was 7.7% and 5.8% respectively compared with 1988.

Housing starts have increased dramatically from last year. The local factors which account for the cost differences between Calgary and other centres are an in-migration of people, pent-up demand and land shortage. The reasons for the changes within the centre from the previous year are improved demand, labour shortages and an attempt to regain income levels lost since 1981.

3.2 Highlights by Centre (continued)

Red Deer :

The 1989 cost of the typical walk-up apartment in Red Deer is 1.6% higher than in Calgary and 3.1% higher than in Edmonton. The cost is 7.7% higher than the 1988 Red Deer cost. Expressed in nominal dollars, the total cost is 9.8% more than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 23.5% less than the 1981 cost. The overall increase in labour cost was 10.3% and the increase in material prices was 6.2% compared with 1988.

Migration of labour to better paying jobs in other areas of the Province has caused shortages of skilled workers forcing builders to pay wage rates similar to Calgary. The majority of materials are available in Red Deer at prices comparable to those in Edmonton or Calgary. Housing starts have increased from last year. Out-migration of labour has caused the main difference between Red Deer and other centres while labour shortages over the past year have been the main reason for changes within the centre.

Fort McMurray :

The 1989 cost of the typical walk-up apartment in Fort McMurray is 11.8% higher than that in Edmonton and 3.2% higher than the 1988 Fort McMurray cost. Expressed in nominal dollars, the total cost is 1.6% more than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the cost is 29.1% less than the 1981 cost. The overall increase in labour and material prices was 2.4% and 3.7% respectively compared with 1988.

Costs have risen marginally over last year. Housing starts have reduced dramatically from last year due to oil companies selling off their own properties at "bargain" prices and creating a surplus of relatively cheap housing. Indications are that this situation will continue for a number of years. Higher costs, because of the Northern location and because of the local resource related activity are the main factors which differentiate Fort McMurray costs from those in other centres. However, these differences are less this year because of the oil companies inventory of pre-owned homes for sale having greatly reduced local demand for new houses.

3.0 COMMENTARY

3.2 Highlights by Centre (continued)

Grande Prairie :

The 1989 cost of the typical walk-up apartment in Grande Prairie is 10.4% higher than in Edmonton and 5.1% higher than the 1988 Grande Prairie cost. Expressed in nominal dollars, the total cost is 9.9% more than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 23.3% less than the 1981 cost. The overall increase in labour and material prices was 4.5% and 5.4% respectively compared with 1988.

Activity in Grande Prairie has increased from last year and current demand is still good. Costs have increased partly due to a small shortage of skilled labour and partly due to improved local economic activity. Costs in Grande Prairie tend to be higher than in Edmonton partly due to the distance from a major centre and the need to haul in materials and partly due to the reduced competition found in a smaller centre. The difference is not as great as in previous years as prices in Grande Prairie have not increased at the same rate as in Edmonton.

Hinton :

The 1989 cost of the typical walk-up apartment in Hinton is 8.5% higher than in Edmonton and 6.2% higher than the 1988 Hinton cost. Expressed in nominal dollars, the total cost is 14.1% higher than the 1982* cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 12.0% less than the 1982* cost. Overall, labour prices in Hinton increased 8.6% while material prices increased 4.9% compared with 1988.

Hinton is the smallest of the ten centres studied and is most susceptible to outside influences. There is a premium on materials because of haulage charges and a premium on labour because the continuing lack of demand for new housing in the area has depleted the local labour force, compelling builders to import certain skilled trades and to pay subsistence allowances. Labour costs have risen locally because some workers have moved to other jobs created by pulp mill expansion and the like. Housing activity was still very low in 1989.

* 1982 has been selected as the base year as Hinton was not part of earlier studies.

3.2 Highlights by Centre (continued)

Lethbridge :

The 1989 cost of the typical walk-up apartment in Lethbridge is 1.0% higher than in Calgary and 6.2% higher than the 1988 Lethbridge cost. Expressed in nominal dollars, the total cost is 8.1% higher than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 24.7% less than the 1981 cost. The overall increase in labour and material prices was 5.3% and 6.6% respectively compared with 1988.

Housing starts in Lethbridge have increased from last year and current demand is still good. Due to the migration of workers to better paying jobs in other areas, a shortage of skilled labour has helped increase costs. Material prices have increased slightly more than in Calgary due to increased haulage rates. Traditionally, labour costs have been less than Calgary because of lesser demand and material costs have been slightly more because of haulage charges. These differences have continued over the past year.

Medicine Hat :

The 1989 cost of the typical walk-up apartment in Medicine Hat is 2.5% higher than in Calgary and 7.1% higher than the 1988 Medicine Hat cost. Expressed in nominal dollars, the total cost is 9.2% higher than the 1981 cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 23.9% less than the 1981 cost. The overall increase in labour cost was 6.4% and the increase in material prices was 7.5% compared with 1988.

As with Lethbridge, current demand in Medicine Hat is good and housing starts have increased from last year. Builders have also had to pay more for skilled labour and also for materials. The comments with regard to cost differentials applied to Lethbridge above also apply to Medicine Hat.

3.0 COMMENTARY

3.2 Highlights by Centre (continued)

Lloydminster :

The 1989 cost of the typical walk-up apartment in Lloydminster is 5.4% higher than in Edmonton and 4.2% higher than the 1988 Lloydminster cost. Expressed in nominal dollars, the total cost is 17.3% higher than the 1984* cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 2.4% less than the 1984* cost. There was no increase in labour costs and the increase in material price was 6.5% compared with 1988.

Activity in Lloydminster was very low in 1989. The factors which account for the cost differences between Lloydminster and elsewhere are its distance from major centres and the local oil related activity. However, uncertainty about future resource projects has restricted growth and the differences between Lloydminster and Edmonton are decreasing because Lloydminster prices are not moving up at the same rate as those in Edmonton. Because of the low activity over the past year, labour costs have hardly moved. Material costs have increased partly because a substantial part of them come from Edmonton and Edmonton materials have increased and because of higher haulage charges.

* 1984 has been selected as the base year as Lloydminster was not part of the earlier studies.

Peace River :

The 1989 cost of the typical walk-up apartment in Peace River is 12.6% higher than in Edmonton and 5.0% higher than the 1988* Peace River cost. Expressed in inflation adjusted, real 1989 dollars, the total cost is 0.1% less than the 1988 cost. The overall increase in labour and material prices was 4.5% and 5.4% respectively compared with 1988.

Current demand is still very good due to the influx of persons connected with the local pulp mill project. Lot prices have risen significantly while other costs have risen only slightly. The local factors which account for the cost differences between Peace River and elsewhere are its distance from a major centre, the need to haul in materials and the current activity created by pulp mill construction. Since last year, labour rates have increased, but not as much as they might have because of the significant in-migration of workers.

* 1988 has been selected as the base year as Peace River was not part of earlier studies.

4.0 DETAILED COST ESTIMATES BY TRADE DIVISION FOR EACH CENTRE

DETAILED COST ESTIMATES FOR EDMONTON

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.53	472	0.89	793	1.42	1,265
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.47	88	0.84	158	1.31	246
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.62	253	6.93	485	10.55	739
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	1.00	501	0.30	150	1.30	651
	SUBTOTAL - EXCAVATION	1.56 /m2 GFA			1,315		1,586		2,901
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	105.00	6,090	105.00	6,090
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.79	1,305	0.79	1,305
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	7.28	1,616	2.01	446	9.29	2,062

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	20.91	2,007	6.25	600	27.16	2,607
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.32	1,970	8.48	3,867	12.80	5,837
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.18	1,450	3.18	1,450
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.51	294	4.41	516	6.92	810
2.60	Parging to concrete walls.	29	m2	10.19	296	3.13	91	13.32	386
	SUBTOTAL - CONCRETE	11.07	/m2 GFA		6,183		14,365		20,548
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.34	54	0.32	51	0.66	105
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	3.12	300	4.05	389	7.17	688
	SUBTOTAL - DAMPROOFING	0.43	/m2 GFA		354		440		794

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING									
4.10	Prefinished aluminum siding	98	m2	5.31	520	16.59	1,626	21.90	2,146
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700	FBM	0.87	609	1.28	896	2.15	1,505
4.50	Stucco on wire mesh incl. building paper.	678	m2	11.10	7,526	5.40	3,661	16.50	11,187
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59	m2	5.04	297	10.69	631	15.73	928
	SUBTOTAL - SIDING	8.49	/m2 GFA		8,953		6,814		15,767
5. ROOFING/SHEET METAL									
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527	m2	22.06	11,626	16.87	8,890	38.93	20,516
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527	m2	2.02	1,065	8.13	4,285	10.15	5,349
5.40	.102 mm polyethylene vapour barrier.	580	m2	0.30	174	0.22	128	0.52	302
5.50	Prefinished flashing over window.	66	m	1.56	103	3.13	207	4.69	310
	SUBTOTAL - ROOFING/SHEET METAL	14.26	/m2 GFA		12,967		13,509		26,476

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6. CARPENTRY (ROUGH)							
6.10 Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	848.35	32,237	848.35	32,237
6.20 Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	636.79	28,019	636.79	28,019
6.30 Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	9.86	40,130	9.86	40,130
6.40 Labour Only - complete framing including installation of windows.	1,857 m2	27.87	51,755	0.00	0	27.87	51,755

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99	m	0.52	51	0.70	69	1.22	121
	SUBTOTAL - CARPENTRY (ROUGH)	81.99	/m2 GFA		51,806		100,456		152,262
7. CARPENTRY (FINISH)									
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2	No.	636.00	1,272	407.00	814	1,043.00	2,086
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314	m	1.68	5,568	1.20	3,977	2.88	9,544
	SUBTOTAL - CARPENTRY (FINISH)	6.26	/m2 GFA		6,840		4,791		11,631
8. WINDOWS AND GLAZING									
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18	No.	0.00	0	923.00	16,614	923.00	16,614
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4	No.	0.00	0	933.00	3,732	933.00	3,732
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6	No.	0.00	0	263.00	1,578	263.00	1,578

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40 Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	178.00	4,984	178.00	4,984
8.50 Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	146.00	438	146.00	438
SUBTOTAL - WINDOWS AND GLAZING	14.73 /m2 GFA		0		27,346		27,346
9. SEALANTS							
9.10 Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.46	334	0.25	181	0.71	515
9.20 Caulk (interior) - ceramic tile	227 m	1.20	272	0.59	134	1.79	406
SUBTOTAL - SEALANTS	0.50 /m2 GFA		606		315		921
10. Doors							
10.03 Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	272.00	816	1,739.00	5,217	2,011.00	6,033

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8 No.	218.00	1,744	1,210.00	9,680	1,428.00	11,424
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50 No.	26.00	1,300	216.00	10,800	242.00	12,100
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1 No.	26.00	26	263.00	263	289.00	289
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48 No.	14.00	672	40.95	1,966	54.95	2,638
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1 No.	26.00	26	225.00	225	251.00	251

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	14.00	1,092	135.00	10,530	149.00	11,622
SUBTOTAL - DOORS	23.89	/m2 GFA		5,676		38,681		44,357
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	13.20	330	25.70	643	38.90	973
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	8.52	690	13.65	1,106	22.17	1,796
11.40 Bathroom privacy latch sets.	24	set	8.52	204	15.75	378	24.27	582
11.50 Door closers (rated).	14	No.	15.40	216	30.45	426	45.85	642
SUBTOTAL - HARDWARE	2.15	/m2 GFA		1,440		2,552		3,992
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	24.95	3,418	17.40	2,384	42.35	5,802
SUBTOTAL - CERAMIC TILING	3.12	/m2 GFA		3,418		2,384		5,802

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD								
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906	m2	2.80	10,937	2.18	8,515	4.98	19,452
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734	m2	3.00	2,202	2.60	1,908	5.60	4,110
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487	m2	3.00	1,461	3.15	1,534	6.15	2,995
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63	m2	5.60	353	3.35	211	8.95	564
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887	m2	4.30	8,114	3.69	6,963	7.99	15,077
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4	m2	6.37	25	7.41	30	13.78	55
13.30 Tentest board, Crane 3-183 Redcliffe	524	m2	4.55	2,384	3.16	1,656	7.71	4,040
13.40 Finish to ceilings - textured	1,425	m2	1.26	1,796	1.10	1,568	2.36	3,363

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.29	390	0.22	296	0.51	686
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	0.91	662	4.20	3,058	5.11	3,720
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	0.91	826	4.20	3,814	5.11	4,640
SUBTOTAL - WALLBOARD	31.61 /m2 GFA		29,151		29,552		58,703
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.30	2,293	12.54	4,565	18.84	6,858
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.63	4,704	15.02	19,466	18.65	24,170
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	18.54	1,242	23.15	1,551	41.69	2,793
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.48	11,346	4.15	5,553	12.63	16,899
SUBTOTAL - FLOORING	27.31 /m2 GFA		19,586		31,134		50,720

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING							
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26 m2	4.68	122	1.26	33	5.94	154
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783 m	1.66	1,300	0.97	760	2.63	2,059
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196 m2	2.02	10,496	0.69	3,585	2.71	14,081
15.30 Two coats urethane varnish on doors and frames.	105 No.	22.40	2,352	6.28	659	28.68	3,011
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328 m	0.86	2,002	0.18	419	1.04	2,421
15.50 Prepare, prime, one coat semigloss on shelving.	94 m2	2.35	221	0.48	45	2.83	266
SUBTOTAL - PAINTING	11.84 /m2 GFA		16,492		5,501		21,993
16. FITTINGS							
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107 m	4.09	438	5.67	607	9.76	1,044

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	33.55	6,542	216.00	42,120	249.55	48,662
SUBTOTAL - FITTINGS	26.77 /m2 GF	34.16	6,980		42,727		49,707
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	5.56	534	9.24	887	14.80	1,421
17.20 Medicine cabinet	24 No.	11.05	265	61.90	1,486	72.95	1,751
17.30 25 mm dia. chrome shower curtain rod.	24 No.	6.10	146	6.82	164	12.92	310
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	67.20	67	425.00	425	492.20	492
17.50 18 mm dia. chrome coat rods.	24 No.	3.70	89	5.05	121	8.75	210
17.60 Drapery tracks.	102 m	3.72	379	8.95	913	12.67	1,292

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	12.26	1,201	45.89	4,497	58.15	5,699
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	12.26	809	40.51	2,674	52.77	3,483
17.90 50 mm dia. pipe handrail and brackets.	54	m	27.16	1,467	48.50	2,619	75.66	4,086
SUBTOTAL - SPECIALTIES	10.09	/m2 GFA		4,958		13,785		18,743
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	18.50	444	539.00	12,936	557.50	13,380
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	18.50	444	636.00	15,264	654.50	15,708
18.30 Range hood	24	No.	18.50	444	91.00	2,184	109.50	2,628
18.40 Coin operated dryer.	2	No.	20.00	40	625.00	1,250	645.00	1,290
18.50 Coin operated washer.	2	No.	20.00	40	815.00	1,630	835.00	1,670
SUBTOTAL - APPLIANCES	18.67	/m2 GFA		1,412		33,264		34,676

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	750.00	18,000	2,050.00	49,200	2,800.00	67,200
SUBTOTAL - PLUMBING	36.19 /m2 GFA		18,000		49,200		67,200
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	430.00	10,320	935.00	22,440	1,365.00	32,760
SUBTOTAL - HEATING	17.64 /m2 GFA		10,320		22,440		32,760

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION							
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24 apt.	90.00	2,160	255.00	6,120	345.00	8,280
SUBTOTAL - VENTILATION	4.46 /m2 GFA		2,160		6,120		8,280
22. FIRE PROTECTION							
22.10 Fire protection system, complete for 24-unit apartment building.	24 apt.	37.50	900	65.00	1,560	102.50	2,460
SUBTOTAL - FIRE PROTECTION	1.32 /m2 GFA		900		1,560		2,460
23. ELECTRICAL							
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24 apt.	625.00	15,000	1,190.00	28,560	1,815.00	43,560
SUBTOTAL - ELECTRICAL	23.46 /m2 GFA		15,000		28,560		43,560

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

EDMONTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads - setup - supervision - plant - site office - small tools - security - boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit - permits - bonds - insurance - office overhead - profit	24 apt.	817.00	19,608	405.00	9,720	1,222.00	29,328
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	15.79 /m2 GFA		19,608		9,720		29,328
TOTAL - EDMONTON	420.53 /m2 GFA		277,437		503,490		780,927

DETAILED COST ESTIMATES FOR CALGARY

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION								
1.10 Excavate for basement, wall footings, and bases.	891	m3	0.58	517	1.94	1,729	2.52	2,245
1.20 Backfill to basement walls, footings, and bases.	188	m3	0.45	85	1.44	271	1.89	355
1.30 150 mm gravel or sand bed under slab on grade.	70	m3	3.93	275	15.22	1,065	19.15	1,341
1.40 .152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	0.99	496	0.32	160	1.31	656
SUBTOTAL - EXCAVATION	2.48	/m2 GFA		1,372		3,225		4,597
2. CONCRETE								
2.10 25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	93.00	5,394	93.00	5,394
2.20 Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.86	1,421	0.86	1,421
2.30 Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	6.80	1,510	1.87	415	8.67	1,925

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	20.30	1,949	7.25	696	27.55	2,645
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.23	1,929	7.06	3,219	11.29	5,148
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.28	1,496	3.28	1,496
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.47	289	4.42	517	6.89	806
2.60	Parging to concrete walls.	29	m2	10.52	305	3.60	104	14.12	409
	SUBTOTAL - CONCRETE	10.36	/m2 GFA		5,981		13,262		19,243
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.44	70	0.38	60	0.82	130
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	4.23	406	4.34	417	8.57	823
	SUBTOTAL - DAMPROOFING	0.51	/m2 GFA		476		477		953

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	5.75	564	13.83	1,355	19.58	1,919
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.87	609	1.37	959	2.24	1,568
4.50	Stucco on wire mesh incl. building paper.	678 m2	11.30	7,661	5.40	3,661	16.70	11,323
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	5.21	307	10.29	607	15.50	915
	SUBTOTAL - SIDING	8.47 /m2 GFA		9,141		6,583		15,724
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	23.18	12,216	17.99	9,481	41.17	21,697
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	2.02	1,065	8.13	4,285	10.15	5,349
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.37	215	0.29	168	0.66	383
5.50	Prefinished flashing over window.	66 m	1.59	105	3.13	207	4.72	312
	SUBTOTAL - ROOFING/SHEET METAL	14.94 /m2 GFA		13,600		14,140		27,740

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.	CARPENTRY (ROUGH)							
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	822.00	31,236	822.00	31,236
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	633.00	27,852	633.00	27,852
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	10.75	43,753	10.75	43,753
6.40	Labour Only - complete framing including installation of windows.	1,857 m2	27.55	51,160	0.00	0	27.55	51,160

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99	m	0.52	51	0.72	71	1.24	123
	SUBTOTAL - CARPENTRY (ROUGH)	83.00	/m2 GFA		51,212		102,912		154,124
7.	CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2	No.	660.00	1,320	405.00	810	1,065.00	2,130
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314	m	1.75	5,800	1.33	4,408	3.08	10,207
	SUBTOTAL - CARPENTRY (FINISH)	6.64	/m2 GFA		7,120		5,218		12,338
8.	WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18	No.	0.00	0	860.00	15,480	860.00	15,480
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4	No.	0.00	0	912.00	3,648	912.00	3,648
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6	No.	0.00	0	263.00	1,578	263.00	1,578

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40 Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	177.00	4,956	177.00	4,956
8.50 Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	145.00	435	145.00	435
SUBTOTAL - WINDOWS AND GLAZING	14.05 /m2 GFA		0		26,097		26,097
9. SEALANTS							
9.10 Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.44	319	0.27	196	0.71	515
9.20 Caulk (interior) - ceramic tile	227 m	1.26	286	0.60	136	1.86	422
SUBTOTAL - SEALANTS	0.50 /m2 GFA		605		332		937
10. Doors							
10.03 Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	240.00	720	1,537.00	4,611	1,777.00	5,331

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8	No.	200.00	1,600	1,108.00	8,864	1,308.00	10,464
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50	No.	23.80	1,190	191.00	9,550	214.80	10,740
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1	No.	23.80	24	235.00	235	258.80	259
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48	No.	14.05	674	39.79	1,910	53.84	2,584
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1	No.	23.80	24	203.00	203	226.80	227

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	14.05	1,096	127.50	9,945	141.55	11,041
SUBTOTAL - DOORS	21.89	/m2 GFA		5,328		35,318		40,646
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	14.05	351	26.02	651	40.07	1,002
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	9.75	790	13.65	1,106	23.40	1,895
11.40 Bathroom privacy latch sets.	24	set	9.75	234	15.75	378	25.50	612
11.50 Door closers (rated).	14	No.	15.66	219	29.40	412	45.06	631
SUBTOTAL - HARDWARE	2.23	/m2 GFA		1,594		2,546		4,140
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	24.50	3,357	17.70	2,425	42.20	5,781
SUBTOTAL - CERAMIC TILING	3.11	/m2 GFA		3,357		2,425		5,782

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD								
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906	m2	2.80	10,937	2.18	8,515	4.98	19,452
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734	m2	3.00	2,202	2.47	1,813	5.47	4,015
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487	m2	3.00	1,461	3.15	1,534	6.15	2,995
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63	m2	5.60	353	3.35	211	8.95	564
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887	m2	4.30	8,114	3.49	6,586	7.79	14,700
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4	m2	6.12	24	7.02	28	13.14	53
13.30 Tentest board, Crane 3-183 Redcliffe	524	m2	4.03	2,112	3.02	1,582	7.05	3,694
13.40 Finish to ceilings - textured	1,425	m2	1.33	1,895	1.19	1,696	2.52	3,591

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.36	485	0.29	390	0.65	875
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	1.16	844	4.41	3,210	5.57	4,055
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	1.16	1,053	4.41	4,004	5.57	5,058
SUBTOTAL - WALLBOARD	31.80 /m2 GFA		29,480		29,570		59,050
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.52	2,373	13.02	4,739	19.54	7,113
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	4.08	5,288	15.86	20,555	19.94	25,842
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	17.85	1,196	22.89	1,534	40.74	2,730
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	7.90	10,570	3.89	5,205	11.79	15,775
SUBTOTAL - FLOORING	27.71 /m2 GFA		19,427		32,032		51,459

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	4.37	114	1.18	31	5.55	144
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.51	1,182	0.91	713	2.42	1,895
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	1.98	10,288	0.69	3,585	2.67	13,873
15.30 Two coats urethane varnish on doors and frames.	105	No.	22.50	2,363	5.81	610	28.31	2,973
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.73	1,699	0.15	349	0.88	2,049
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.25	212	0.42	39	2.67	251
SUBTOTAL - PAINTING	11.41	/m2 GFA		15,857		5.327		21,184
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	4.45	476	6.28	672	10.73	1,148

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	33.32	6,497	214.00	41,730	247.32	48,227
SUBTOTAL - FITTINGS	26.59 /m2 GFA		6,974		42,402		49,376
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.00	576	9.51	913	15.51	1,489
17.20 Medicine cabinet	24 No.	11.88	285	65.63	1,575	77.51	1,860
17.30 25 mm dia. chrome shower curtain rod.	24 No.	6.00	144	6.93	166	12.93	310
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	64.80	65	415.00	415	479.80	480
17.50 18 mm dia. chrome coat rods.	24 No.	4.27	102	5.78	139	10.05	241
17.60 Drapery tracks.	102 m	3.65	372	9.16	934	12.81	1,307

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	12.20	1,196	45.99	4,507	58.19	5,703
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	12.20	805	40.70	2,686	52.90	3,491
17.90 50 mm dia. pipe handrail and brackets.	54	m	26.20	1,415	47.91	2,587	74.11	4,002
SUBTOTAL - SPECIALTIES	10.17	/m2 GFA		4,960		13,923		18,883
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	18.50	444	539.00	12,936	557.50	13,380
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	18.50	444	636.00	15,264	654.50	15,708
18.30 Range hood	24	No.	18.50	444	91.00	2,184	109.50	2,628
18.40 Coin operated dryer.	2	No.	20.00	40	625.00	1,250	645.00	1,290
18.50 Coin operated washer.	2	No.	20.00	40	815.00	1,630	835.00	1,670
SUBTOTAL - APPLIANCES	18.67	/m2 GFA		1,412		33,264		34,676

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	780.00	18,720	2,090.00	50,160	2,870.00	68,880
SUBTOTAL - PLUMBING	37.09 /m2 GFA		18,720		50,160		68,880
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	495.00	11,880	1,010.00	24,240	1,505.00	36,120
SUBTOTAL - HEATING	19.45 /m2 GFA		11,880		24,240		36,120

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION							
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24 apt.	97.00	2,328	252.00	6,048	349.00	8,376
SUBTOTAL - VENTILATION	4.51 /m2 GFA		2,328		6,048		8,376
22. FIRE PROTECTION							
22.10 Fire protection system, complete for 24-unit apartment building.	24 apt.	35.00	840	62.00	1,488	97.00	2,328
SUBTOTAL - FIRE PROTECTION	1.25 /m2 GFA		840		1,488		2,328
23. ELECTRICAL							
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24 apt.	780.00	18,720	1,190.00	28,560	1,970.00	47,280
SUBTOTAL - ELECTRICAL	25.46 /m2 GFA		18,720		28,560		47,280

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

CALGARY

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads - setup - supervision - plant - site office - small tools - security - boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit - permits - bonds - insurance - office overhead - profit	24 apt.	904.00	21,696	449.00	10,776	1,353.00	32,472
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	17.49 /m2 GFA		21,696		10,776		32,472
TOTAL - CALGARY	426.71 /m2 GFA		285,392		507,013		792,405

DETAILED COST ESTIMATES FOR RED DEER

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.54	481	1.30	1,158	1.84	1,639
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.44	83	0.78	147	1.22	229
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.88	272	12.14	850	16.02	1,121
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	1.02	511	0.30	150	1.32	661
	SUBTOTAL - EXCAVATION	1.97	/m2 GFA		1,346		2,305		3,651
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	107.04	6,208	107.04	6,208
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.82	1,355	0.82	1,355
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	6.99	1,552	2.10	466	9.09	2,018

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	20.08	1,928	6.55	629	26.63	2,556
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.38	1,997	8.98	4,095	13.36	6,092
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.23	1,473	3.23	1,473
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.41	282	4.43	518	6.84	800
2.60	Parging to concrete walls.	29	m2	9.54	277	3.30	96	12.84	372
	SUBTOTAL - CONCRETE	11.24	/m2 GFA		6,035		14,840		20,875
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.47	75	0.40	64	0.87	138
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	4.63	444	4.33	416	8.96	860
	SUBTOTAL - DAMPROOFING	0.54	/m2 GFA		519		479		998

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	7.50	735	16.43	1,610	23.93	2,345
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.82	574	1.28	896	2.10	1,470
4.50	Stucco on wire mesh incl. building paper.	678 m2	11.81	8,007	5.63	3,817	17.44	11,824
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	5.45	322	9.83	580	15.28	902
	SUBTOTAL - SIDING	8.91 /m2 GFA		9,638		6,903		16,541
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	22.96	12,100	18.27	9,628	41.23	21,728
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.94	1,022	8.29	4,369	10.23	5,391
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.32	186	0.24	139	0.56	325
5.50	Prefinished flashing over window.	66 m	1.74	115	3.13	207	4.87	321
	SUBTOTAL - ROOFING/SHEET METAL	14.95 /m2 GFA		13,423		14,343		27,766

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6. CARPENTRY (ROUGH)								
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	802.10	30,480	802.10	30,480
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	602.05	26,490	602.05	26,490
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	10.28	41,840	10.28	41,840
6.40	Labour Only - complete framing including installation of windows.	1,057 m2	26.52	49,248	0.00	0	26.52	49,248

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Pate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99	m	0.52	51	0.71	70	1.23	122
	SUBTOTAL - CARPENTRY (ROUGH)	79.79	/m2 GFA		49,299		98,880		148,179
7.	CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2	No.	636.00	1,272	405.00	810	1,041.00	2,082
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314	m	1.51	5,004	1.24	4,109	2.75	9,114
	SUBTOTAL - CARPENTRY (FINISH)	6.03	/m2 GFA		6,276		4,919		11,195
8.	WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18	No.	0.00	0	959.00	17,262	959.00	17,262
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4	No.	0.00	0	945.00	3,780	945.00	3,780
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6	No.	0.00	0	269.00	1,614	269.00	1,614

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40 Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	182.00	5,096	182.00	5,096
8.50 Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	149.00	447	149.00	447
SUBTOTAL - WINDOWS AND GLAZING	15.19 /m2 GFA		0		28,199		28,199
9. SEALANTS							
9.10 Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.44	319	0.26	189	0.70	508
9.20 Caulk (interior) - ceramic tile	227 m	1.22	277	0.58	132	1.80	409
SUBTOTAL - SEALANTS	0.49 /m2 GFA		596		320		916
10. Doors							
10.03 Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	263.00	789	1,780.00	5,340	2,043.00	6,129

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8	No.	224.00	1,792	1,240.00	9,920	1,464.00	11,712
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50	No.	25.20	1,260	215.00	10,750	240.20	12,010
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1	No.	25.20	25	265.00	265	290.20	290
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48	No.	12.35	593	46.40	2,227	58.75	2,820
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1	No.	25.20	25	223.00	223	248.20	248

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78 No.	13.75	1,073	132.00	10,296	145.75	11,369
SUBTOTAL - DOORS	24.01 /m2 GFA		5,557		39,021		44,578
11. HARDWARE							
11.15 Lock sets to interior doors.	25 set	13.45	336	26.02	651	39.47	987
11.25 Butts to interior doors. (included with frames)	129 pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81 set	9.00	729	13.65	1,106	22.65	1,835
11.40 Bathroom privacy latch sets.	24 set	9.00	216	15.75	378	24.75	594
11.50 Door closers (rated).	14 No.	14.60	204	30.45	426	45.05	631
SUBTOTAL - HARDWARE	2.18 /m2 GFA		1,486		2,560		4,046
12. CERAMIC TILING							
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137 m2	24.65	3,377	17.39	2,382	42.04	5,759
SUBTOTAL - CERAMIC TILING	3.10 /m2 GFA		3,377		2,382		5,759

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD							
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906 m2	2.88	11,249	2.18	8,515	5.06	19,764
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734 m2	3.15	2,312	2.60	1,908	5.75	4,221
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487 m2	3.15	1,534	3.17	1,544	6.32	3,078
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63 m2	5.66	357	3.35	211	9.01	568
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887 m2	4.38	8,265	3.69	6,963	8.07	15,228
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4 m2	6.44	26	7.41	30	13.85	55
13.30 Tentest board, Crane 3-183 Redcliffe	524 m2	5.06	2,651	3.16	1,656	8.22	4,307
13.40 Finish to ceilings - textured	1,425 m2	1.45	2,066	1.16	1,653	2.61	3,719

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.33	444	0.24	323	0.57	767
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	1.00	728	4.28	3,116	5.28	3,844
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	1.00	908	4.28	3,886	5.28	4,794
SUBTOTAL - WALLBOARD	32.50 /m2 GFA		30,541		29,805		60,346
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.19	2,253	12.54	4,565	18.73	6,818
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.96	5,132	15.42	19,984	19.38	25,116
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	19.55	1,310	23.85	1,598	43.40	2,908
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.60	11,507	4.20	5,620	12.80	17,126
SUBTOTAL - FLOORING	27.98 /m2 GFA		20,202		31,766		51,968

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	4.58	119	1.30	34	5.88	153
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.64	1,284	0.98	767	2.62	2,051
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.27	11,795	0.76	3,949	3.03	15,744
15.30 Two coats urethane varnish on doors and frames.	105	No.	22.33	2,345	6.66	699	28.99	3,044
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.90	2,095	0.20	466	1.10	2,561
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.49	234	0.47	44	2.96	278
SUBTOTAL - PAINTING	12.83	/m2 GFA		17,872		5,959		23,831
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	4.23	453	6.07	649	10.30	1.102

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	34.72	6,770	230.00	44,850	264.72	51,620
SUBTOTAL - FITTINGS	28.39 /m2 GFA		7,223		45,499		52,722
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.66	639	9.24	887	15.90	1,526
17.20 Medicine cabinet	24 No.	11.20	269	61.90	1,486	73.10	1,754
17.30 25 mm dia. chrome shower curtain rod.	24 No.	6.16	148	6.81	163	12.97	311
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	67.25	67	425.00	425	492.25	492
17.50 18 mm dia. chrome coat rods.	24 No.	3.92	94	5.05	121	8.97	215
17.60 Drapery tracks.	102 m	3.67	374	8.98	916	12.65	1,290

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98 m	12.35	1,210	45.89	4,497	58.24	5,708
17.80 Metal balustrade to stairs c/w vinyl cap.	66 m	12.35	815	40.51	2,674	52.86	3,489
17.90 50 mm dia. pipe handrail and brackets.	54 m	27.20	1,469	48.30	2,608	75.50	4,077
SUBTOTAL - SPECIALTIES	10.16 /m2 GFA		5,086		13,777		18,863
18. APPLIANCES							
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24 No.	17.50	420	528.00	12,672	545.50	13,092
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24 No.	17.50	420	636.00	15,264	653.50	15,684
18.30 Range hood	24 No.	17.50	420	95.00	2,280	112.50	2,700
18.40 Coin operated dryer.	2 No.	19.50	39	615.00	1,230	634.50	1,269
18.50 Coin operated washer.	2 No.	19.50	39	792.00	1,584	811.50	1,623
SUBTOTAL - APPLIANCES	18.51 /m2 GFA		1,338		33,030		34,368

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOUR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING								
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24	apt.	785.00	18,840	2,080.00	49,920	2,865.00	68,760
SUBTOTAL - PLUMBING	37.03	/m2 GFA		18,840		49,920		68,760
20. HEATING								
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24	apt.	530.00	12,720	1,105.00	26,520	1,635.00	39,240
SUBTOTAL - HEATING	21.13	/m2 GFA		12,720		26,520		39,240

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION							
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24 apt.	90.00	2,160	245.00	5,880	335.00	8,040
SUBTOTAL - VENTILATION	4.33 /m2 GFA		2,160		5,880		8,040
22. FIRE PROTECTION							
22.10 Fire protection system, complete for 24-unit apartment building.	24 apt.	35.00	840	61.00	1,464	96.00	2,304
SUBTOTAL - FIRE PROTECTION	1.24 /m2 GFA		840		1,464		2,304
23. ELECTRICAL							
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24 apt.	945.00	22,680	1,170.00	28,080	2,115.00	50,760
SUBTOTAL - ELECTRICAL	27.33 /m2 GFA		22,680		28,080		50,760

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

RED DEER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS								
24.10 Site Overheads								
- setup								
- supervision								
- plant								
- site office								
- small tools								
- security								
- boarding, etc.	24	apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93	/m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT								
25.10 General Contractor's Overhead & Profit								
- permits								
- bonds								
- insurance								
- office overhead								
- profit	24	apt.	882.00	21,168	403.00	9,672	1,285.00	30,840
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	16.61	/m2 GFA		21,168		9,672		30,840
TOTAL - RED DEER	433.36	/m2 GFA		291,534		513,211		804,745

DETAILED COST ESTIMATES FOR FORT McMURRAY

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

FORT McMURRAY

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.65	579	1.15	1,025	1.80	1,604
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.60	113	1.05	197	1.65	310
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.36	235	20.75	1,453	24.11	1,688
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	0.96	481	0.30	150	1.26	631
	SUBTOTAL - EXCAVATION	2.28	/m2 GFA		1,408		2,825		4,233
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	148.05	8,587	148.05	8,587
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.85	1,404	0.85	1,404
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	6.86	1,523	2.72	604	9.58	2,127

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1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	17.85	1,714	9.58	920	27.43	2,633
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	3.99	1,819	11.24	5,125	15.23	6,945
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.44	1,569	3.44	1,569
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.42	283	5.03	589	7.45	872
2.60	Parging to concrete walls.	29	m2	9.95	289	4.60	133	14.55	422
	SUBTOTAL - CONCRETE	12.88	/m2 GFA		5,539		18,388		23,927
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.40	64	0.39	62	0.79	126
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	6.62	636	4.59	441	11.21	1,076
	SUBTOTAL - DAMPROOFING	0.65	/m2 GFA		699		503		1,202

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4.	SIDING							
4.10	Prefinished aluminum siding	98 m2	6.90	676	15.61	1,530	22.51	2,206
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.81	567	1.16	812	1.97	1,379
4.50	Stucco on wire mesh incl. building paper.	678 m2	14.89	10,095	6.99	4,739	21.88	14,835
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	6.55	386	12.13	716	18.68	1,102
	SUBTOTAL - SIDING	10.51 /m2 GFA		11,725		7,797		19,522
5.	ROOFING/SHEET METAL							
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	23.96	12,627	19.70	10,382	43.66	23,009
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.89	996	7.63	4,021	9.52	5,017
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.37	215	0.23	133	0.60	348
5.50	Prefinished flashing over window.	66 m	2.05	135	3.59	237	5.64	372
	SUBTOTAL - ROOFING/SHEET METAL	15.48 /m2 GFA		13,973		14,773		28,746

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.	CARPENTRY (ROUGH)							
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	815.00	30,970	815.00	30,970
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	611.00	26,884	611.00	26,884
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	11.86	48,270	11.86	48,270
6.40	Labour Only - complete framing including installation of windows.	1,857 m2	31.77	58,997	0.00	0	31.77	58,997

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99	m	1.54	152	0.71	70	2.25	223
	SUBTOTAL - CARPENTRY (ROUGH)	89.04	/m2 GFA		59,149		106,194		165,343
7.	CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2	No.	536.00	1,072	459.00	918	995.00	1,990
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314	m	1.58	5,236	1.23	4,076	2.81	9,312
	SUBTOTAL - CARPENTRY (FINISH)	6.09	/m2 GFA		6,308		4,994		11,302
8.	WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18	No.	0.00	0	996.00	17,928	996.00	17,928
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4	No.	0.00	0	975.00	3,900	975.00	3,900
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6	No.	0.00	0	281.00	1,686	281.00	1,686

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40	Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	187.00	5,236	187.00	5,236
8.50	Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	153.00	459	153.00	459
	SUBTOTAL - WINDOWS AND GLAZING	15.73 /m2 GFA		0		29,209		29,209
9.	SEALANTS							
9.10	Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.44	319	0.29	210	0.73	529
9.20	Caulk (interior) - ceramic tile	227 m	1.22	277	0.61	138	1.83	415
	SUBTOTAL - SEALANTS	0.51 /m2 GFA		596		349		945
10.	Doors							
10.03	Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	273.00	819	1,869.00	5,607	2,142.00	6,426

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8	No.	211.00	1,688	1,315.00	10,520	1,526.00	12,208
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50	No.	28.35	1,418	225.00	11,250	253.35	12,668
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1	No.	28.35	28	279.00	279	307.35	307
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48	No.	15.75	756	49.30	2,366	65.05	3,122
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1	No.	28.35	28	245.00	245	273.35	273

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	14.91	1,163	152.00	11,856	166.91	13,019
SUBTOTAL - DOORS	25.86	/m2 GFA		5,900		42,123		48,023
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	14.18	355	27.25	681	41.43	1,036
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	9.20	745	13.65	1,106	22.85	1,851
11.40 Bathroom privacy latch sets.	24	set	9.20	221	15.75	378	24.95	599
11.50 Door closers (rated).	14	No.	16.39	229	31.95	447	48.34	677
SUBTOTAL - HARDWARE	2.24	/m2 GFA		1,550		2,612		4,162
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	29.25	4,007	19.43	2,662	48.68	6,669
SUBTOTAL - CERAMIC TILING	3.59	/m2 GFA		4,007		2,662		6,669

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD							
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906 m2	3.02	11,796	2.41	9,413	5.43	21,210
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734 m2	3.28	2,408	2.93	2,151	6.21	4,558
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487 m2	3.28	1,597	3.60	1,753	6.88	3,351
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63 m2	5.72	360	3.80	239	9.52	600
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887 m2	4.45	8,397	4.12	7,774	8.57	16,172
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4 m2	6.82	27	8.35	33	15.17	61
13.30 Tentest board, Crane 3-183 Redcliffe	524 m2	4.79	2,510	3.25	1,703	8.04	4,213
13.40 Finish to ceilings - textured	1,425 m2	1.47	2,095	1.28	1,824	2.75	3,919

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.36	485	0.25	337	0.61	821
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	0.93	677	4.20	3,058	5.13	3,735
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	0.93	844	4.20	3,814	5.13	4,658
SUBTOTAL - WALLBOARD	34.09 /m2 GFA		31,197		32,099		63,296
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.80	2,475	12.66	4,608	19.46	7,083
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.88	5,028	17.39	22,537	21.27	27,566
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	17.87	1,197	23.40	1,568	41.27	2,765
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.15	10,905	4.15	5,553	12.30	16,457
SUBTOTAL - FLOORING	29.01 /m2 GFA		19,606		34,266		53,872

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	5.55	144	1.33	35	6.88	179
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.46	1,143	1.02	799	2.48	1,942
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.36	12,263	0.74	3,845	3.10	16,108
15.30 Two coats urethane varnish on doors and frames.	105	No.	28.35	2,977	6.45	677	34.80	3,654
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.72	1,676	0.23	535	0.95	2,212
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.18	205	0.40	38	2.58	243
SUBTOTAL - PAINTING	13.11	/m2 GFA		18,408		5,929		24,337
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	3.99	427	5.73	613	9.72	1,040

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	36.75	7,166	225.00	43,875	261.75	51,041
SUBTOTAL - FITTINGS	28.05 /m2 GFA		7,593		44,488		52,081
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.46	620	9.87	948	16.33	1,568
17.20 Medicine cabinet	24 No.	12.60	302	65.94	1,583	78.54	1,885
17.30 25 mm dia. chrome shower curtain rod.	24 No.	6.85	164	7.27	174	14.12	339
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	65.00	65	422.00	422	487.00	487
17.50 18 mm dia. chrome coat rods.	24 No.	4.25	102	6.16	148	10.41	250
17.60 Drapery tracks.	102 m	4.29	438	10.10	1,030	14.39	1,468

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	12.32	1,207	49.67	4,868	61.99	6,075
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	12.32	813	43.89	2,897	56.21	3,710
17.90 50 mm dia. pipe handrail and brackets.	54	m	28.10	1,517	51.19	2,764	79.29	4,282
SUBTOTAL - SPECIALTIES	10.80	/m2 GFA		5,229		14,833		20,062
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	21.00	504	545.00	13,080	566.00	13,584
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	21.00	504	636.00	15,264	657.00	15,768
18.30 Range hood	24	No.	21.00	504	112.00	2,688	133.00	3,192
18.40 Coin operated dryer.	2	No.	22.00	44	635.00	1,270	657.00	1,314
18.50 Coin operated washer.	2	No.	22.00	44	835.00	1,670	857.00	1,714
SUBTOTAL - APPLIANCES	19.16	/m2 GFA		1,600		33,972		35,572

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING								
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24	apt.	967.00	23,208	2,271.00	54,504	3,238.00	77,712
SUBTOTAL - PLUMBING	41.85	/m2 GFA		23,208		54,504		77,712
20. HEATING								
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24	apt.	559.00	13,416	1,292.00	31,008	1,851.00	44,424
SUBTOTAL - HEATING	23.92	/m2 GFA		13,416		31,008		44,424

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION								
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24	apt.	101.00	2,424	307.00	7,368	408.00	9,792
SUBTOTAL - VENTILATION	5.27	/m2 GFA		2,424		7,368		9,792
22. FIRE PROTECTION								
22.10 Fire protection system, complete for 24-unit apartment building.	24	apt.	39.00	936	79.00	1,896	118.00	2,832
SUBTOTAL - FIRE PROTECTION	1.53	/m2 GFA		936		1,896		2,832
23. ELECTRICAL								
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24	apt.	1,019.00	24,456	1,412.00	33,888	2,431.00	58,344
SUBTOTAL - ELECTRICAL	31.42	/m2 GFA		24,456		33,888		58,344

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

GRANDE PRAIRIE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads - setup - supervision - plant - site office - small tools - security - boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit - permits - bonds - insurance - office overhead - profit	24 apt.	737.00	17,688	380.00	9,120	1,117.00	26,808
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	14.44 /m2 GFA		17,688		9,120		26,808
TOTAL - GRANDE PRAIRIE	464.07 /m2 GFA		309,972		551,813		861,785

DETAILED COST ESTIMATES FOR HINTON

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings. and bases.	891	m3	0.52	463	0.99	882	1.51	1,345
1.20	Backfill to basement walls. footings. and bases.	188	m3	0.45	85	0.89	167	1.34	252
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.74	262	6.84	479	10.58	741
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	0.98	491	0.30	150	1.28	641
	SUBTOTAL - EXCAVATION	1.60	/m2 GFA		1,301		1,679		2,930
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	134.91	7,825	134.91	7,825
2.20	Reinforcing steel in footings and basement walls (material only),	1,652	kg	0.00	0	0.79	1,305	0.79	1,305
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	8.07	1,792	2.46	546	10.53	2,338

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	23.14	2,221	7.77	746	30.91	2,967
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.80	2,189	10.92	4,980	15.72	7,168
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.23	1,473	3.23	1,473
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.24	262	4.68	548	6.92	810
2.60	Parging to concrete walls.	29	m2	10.08	292	3.76	109	13.84	401
	SUBTOTAL - CONCRETE	13.08	/m2 GFA		6,756		17,531		24,287
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.33	52	0.32	51	0.65	103
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	4.98	478	4.28	411	9.26	889
	SUBTOTAL - DAMPROOFING	0.53	/m2 GFA		531		462		993

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	7.92	776	13.45	1,318	21.37	2,094
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.86	602	1.20	840	2.06	1,442
4.50	Stucco on wire mesh incl. building paper.	678 m2	14.51	9,838	6.90	4,678	21.41	14,516
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	4.95	292	12.36	729	17.31	1,021
	SUBTOTAL - SIDING	10.27 /m2 GFA		11,508		7,566		19,074
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	21.78	11,478	21.11	11,125	42.89	22,603
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.80	949	7.80	4,111	9.60	5,059
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.30	174	0.22	128	0.52	302
5.50	Prefinished flashing over window.	66 m	1.50	99	3.66	242	5.16	341
	SUBTOTAL - ROOFING/SHEET METAL	15.24 /m2 GFA		12,700		15,605		28,305

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.	CARPENTRY (ROUGH)							
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	771.23	29,307	771.23	29,307
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	578.90	25,472	578.90	25,472
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	11.81	48,067	11.81	48,067
6.40	Labour Only - complete framing including installation of windows.	1,857 m2	31.76	58,978	0.00	0	31.76	58,978

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99	m	0.46	46	0.71	70	1.17	116
	SUBTOTAL - CARPENTRY (ROUGH)	87.20	/m2 GFA		59,024		102,915		161,939
7. CARPENTRY (FINISH)									
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2	No.	656.00	1,312	403.00	806	1,059.00	2,118
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314	m	1.32	4,374	1.25	4,143	2.57	8,517
	SUBTOTAL - CARPENTRY (FINISH)	5.73	/m2 GFA		5,686		4,949		10,635
8. WINDOWS AND GLAZING									
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18	No.	0.00	0	980.00	17,640	980.00	17,640
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4	No.	0.00	0	933.00	3,732	933.00	3,732
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6	No.	0.00	0	269.00	1,614	269.00	1,614

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40	Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	180.00	5,040	180.00	5,040
8.50	Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	146.00	438	146.00	438
	SUBTOTAL - WINDOWS AND GLAZING	15.33 /m2 GFA		0		28,464		28,464
9. SEALANTS								
9.10	Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.44	319	0.26	189	0.70	508
9.20	Caulk (interior) - ceramic tile	227 m	1.21	275	0.59	134	1.80	409
	SUBTOTAL - SEALANTS	0.49 /m2 GFA		594		322		916
10. Doors								
10.03	Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	275.00	825	1,866.00	5,598	2,141.00	6,423

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8	No.	217.00	1,736	1,330.00	10,640	1,547.00	12,376
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50	No.	25.90	1,295	213.00	10,650	238.90	11,945
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1	No.	25.90	26	253.00	253	278.90	279
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48	No.	13.75	660	46.50	2,232	60.25	2,892
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1	No.	25.90	26	244.00	244	269.90	270

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78 No.	14.30	1,115	145.00	11,310	159.30	12,425
SUBTOTAL - DOORS	25.10 /m2 GFA		5,683		40,927		46,610
11. HARDWARE							
11.15 Lock sets to interior doors.	25 set	13.20	330	25.89	647	39.09	977
11.25 Butts to interior doors. (included with frames)	129 pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81 set	9.00	729	13.65	1,106	22.65	1,835
11.40 Bathroom privacy latch sets.	24 set	9.00	216	15.75	378	24.75	594
11.50 Door closers (rated).	14 No.	15.95	223	30.95	433	46.90	657
SUBTOTAL - HARDWARE	2.19 /m2 GFA		1,498		2,564		4,062
12. CERAMIC TILING							
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137 m2	27.50	3,768	18.27	2,503	45.77	6,270
SUBTOTAL - CERAMIC TILING	3.38 /m2 GFA		3,768		2,503		6,271

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD								
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906	m2	3.39	13,241	2.73	10,663	6.12	23,905
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734	m2	3.75	2,753	3.23	2,371	6.98	5,123
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487	m2	3.75	1,826	3.93	1,914	7.68	3,740
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63	m2	6.11	385	4.19	264	10.30	649
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887	m2	4.91	9,265	4.59	8,661	9.50	17,927
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4	m2	7.72	31	8.98	36	16.70	67
13.30 Tentest board, Crane 3-183 Redcliffe	524	m2	5.03	2,636	3.88	2,033	8.91	4,669
13.40 Finish to ceilings - textured	1,425	m2	1.36	1,938	1.26	1,796	2.62	3,734

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.30	404	0.22	296	0.52	700
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	0.91	662	4.20	3,058	5.11	3,720
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	0.91	826	4.20	3,814	5.11	4,640
SUBTOTAL - WALLBOARD	37.09 /m2 GFA		33,967		34,905		68,872
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.19	2,253	12.54	4,565	18.73	6,818
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.67	4,756	15.90	20,606	19.57	25,363
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	18.85	1,263	24.35	1,631	43.20	2,894
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.63	11,547	4.22	5,646	12.85	17,193
SUBTOTAL - FLOORING	28.15 /m2 GFA		19,819		32,449		52,268

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING							
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26 m2	5.17	134	1.26	33	6.43	167
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783 m	1.67	1,308	0.99	775	2.66	2,083
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196 m2	2.42	12,574	0.74	3,845	3.16	16,419
15.30 Two coats urethane varnish on doors and frames.	105 No.	28.05	2,945	6.31	663	34.36	3,608
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328 m	0.80	1,862	0.18	419	0.98	2,281
15.50 Prepare, prime, one coat semigloss on shelving.	94 m2	2.55	240	0.48	45	3.03	285
SUBTOTAL - PAINTING	13.38 /m2 GFA		19,064		5,780		24,844
16. FITTINGS							
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107 m	4.02	430	5.88	629	9.90	1,059

WALK - UP APARTMENT

GROSS FLOOR AREA : * 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	33.55	6,542	225.00	43,875	258.55	50,417
SUBTOTAL - FITTINGS	27.72 /m2 GFA		6,972		44,504		51,476
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.05	581	9.24	887	15.29	1,468
17.20 Medicine cabinet	24 No.	12.10	290	61.90	1,486	74.00	1,776
17.30 25 mm dia. chrome shower curtain rod.	24 No.	7.15	172	6.81	163	13.96	335
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	66.00	66	422.00	422	488.00	488
17.50 18 mm dia. chrome coat rods.	24 No.	3.85	92	5.05	121	8.90	214
17.60 Drapery tracks.	102 m	3.98	406	9.29	948	13.27	1,354

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70	970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	12.49	1,224	47.25	4,631	59.74	5,855
17.80	Metal balustrade to stairs c/w vinyl cap.	66	m	12.49	824	42.00	2,772	54.49	3,596
17.90	50 mm dia. pipe handrail and brackets.	54	m	26.95	1,455	49.42	2,669	76.37	4,124
	SUBTOTAL - SPECIALTIES	10.34	/m2 GFA		5,111		14,098		19,209
18.	APPLIANCES								
18.10	Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	19.25	462	539.00	12,936	558.25	13,398
18.20	Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	19.25	462	636.00	15,264	655.25	15,726
18.30	Range hood	24	No.	19.25	462	99.00	2,376	118.25	2,838
18.40	Coin operated dryer.	2	No.	21.00	42	625.00	1,250	646.00	1,292
18.50	Coin operated washer.	2	No.	21.00	42	815.00	1,630	836.00	1,672
	SUBTOTAL - APPLIANCES	18.81	/m2 GFA		1,470		33,456		34,926

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	850.00	20,400	2,132.00	51,168	2,982.00	71,568
SUBTOTAL - PLUMBING	38.54 /m2 GFA		20,400		51,168		71,568
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	499.00	11,976	1,239.00	29,736	1,738.00	41,712
SUBTOTAL - HEATING	22.46 /m2 GFA		11,976		29,736		41,712

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION								
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24	apt.	105.00	2,520	306.00	7,344	411.00	9,864
SUBTOTAL - VENTILATION	5.31	/m2 GFA		2,520		7,344		9,864
22. FIRE PROTECTION								
22.10 Fire protection system, complete for 24-unit apartment building.	24	apt.	41.00	984	79.00	1,896	120.00	2,880
SUBTOTAL - FIRE PROTECTION	1.55	/m2 GFA		984		1,896		2,880
23. ELECTRICAL								
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24	apt.	990.00	23,760	1,512.00	36,288	2,502.00	60,048
SUBTOTAL - ELECTRICAL	32.34	/m2 GFA		23,760		36,288		60,048

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

HINTON

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads - setup - supervision - plant - site office - small tools - security - boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit - permits - bonds - insurance - office overhead - profit	24 apt.	767.00	18,408	376.00	9,024	1,143.00	27,432
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	14.77 /m2 GFA		18,408		9,024		27,432
TOTAL - HINTON	457.53 /m2 GFA		306,812		542,823		849,635

DETAILED COST ESTIMATES FOR LETHBRIDGE

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.45	401	1.46	1,301	1.91	1,702
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.42	79	1.42	267	1.84	346
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.33	233	12.21	855	15.54	1,088
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	0.93	466	0.28	140	1.21	606
	SUBTOTAL - EXCAVATION	2.02	/m2 GFA		1,179		2,563		3,742
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	105.00	6,090	105.00	6,090
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.75	1,239	0.75	1,239
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	6.44	1,430	2.45	544	8.89	1,974

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	18.50	1,776	7.72	741	26.22	2,517
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	3.99	1,819	8.49	3,871	12.48	5,691
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.05	1,391	3.05	1,391
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.33	273	4.77	558	7.10	831
2.60	Parging to concrete walls.	29	m2	9.67	280	3.01	87	12.68	368
	SUBTOTAL - CONCRETE	10.82	/m2 GFA		5,578		14,522		20,100
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.35	56	0.31	49	0.66	105
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	4.78	459	4.20	403	8.98	862
	SUBTOTAL - DAMPROOFING	0.52	/m2 GFA		515		452		967

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4.	SIDING								
4.10	Prefinished aluminum siding	98	m2	5.28	517	15.65	1,534	20.93	2,051
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700	FBM	0.85	595	1.46	1,022	2.31	1,617
4.50	Stucco on wire mesh incl. building paper.	678	m2	13.52	9,167	6.57	4,454	20.09	13,621
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59	m2	5.13	303	11.02	650	16.15	953
	SUBTOTAL - SIDING	9.82	/m2 GFA		10,582		7,660		18,242
5.	ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527	m2	21.54	11,352	17.21	9,070	38.75	20,421
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527	m2	1.94	1,022	8.44	4,448	10.38	5,470
5.40	.102 mm polyethylene vapour barrier.	580	m2	0.36	209	0.24	139	0.60	348
5.50	Prefinished flashing over window.	66	m	1.61	106	3.28	216	4.89	323
	SUBTOTAL - ROOFING/SHEET METAL	14.30	/m2 GFA		12,689		13,873		26,562

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.	CARPENTRY (ROUGH)								
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0	MFBM	0.00	0	857.00	32,566	857.00	32,566
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0	MFBM	0.00	0	543.20	23,901	543.20	23,901
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070	m2	0.00	0	11.40	46,398	11.40	46,398
6.40	Labour Only - complete framing including installation of windows.	1,857	m2	28.31	52,572	0.00	0	28.31	52,572

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99 m	0.48	48	0.76	75	1.24	123
	SUBTOTAL - CARPENTRY (ROUGH)	83.77 /m2 GFA		52,619		102,940		155,559
7.	CARPENTRY (FINISH)							
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2 No.	628.00	1,256	459.00	918	1,087.00	2,174
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314 m	1.27	4,209	1.39	4,606	2.66	8,815
	SUBTOTAL - CARPENTRY (FINISH)	5.92 /m2 GFA		5,465		5,524		10,989
8.	WINDOWS AND GLAZING							
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18 No.	0.00	0	975.00	17,550	975.00	17,550
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4 No.	0.00	0	922.00	3,688	922.00	3,688
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6 No.	0.00	0	263.00	1,578	263.00	1,578

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40	Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	178.00	4,984	178.00	4,984
8.50	Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	145.00	435	145.00	435
	SUBTOTAL - WINDOWS AND GLAZING	15.20 /m2 GFA		0		28,235		28,235
9. SEALANTS								
9.10	Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.43	312	0.25	181	0.68	493
9.20	Caulk (interior) - ceramic tile	227 m	1.14	259	0.59	134	1.73	393
	SUBTOTAL - SEALANTS	0.48 /m2 GFA		571		315		886
10. Doors								
10.03	Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	266.00	798	1,887.00	5,661	2,153.00	6,459

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8	No.	206.00	1,648	1,317.00	10,536	1,523.00	12,184
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50	No.	24.00	1,200	199.00	9,950	223.00	11,150
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1	No.	24.00	24	248.00	248	272.00	272
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48	No.	13.30	638	41.99	2,016	55.29	2,654
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1	No.	24.00	24	227.00	227	251.00	251

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	13.30	1,037	134.00	10,452	147.30	11,489
SUBTOTAL - DOORS	23.94	/m2 GFA		5,370		39,090		44,460
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	11.77	294	24.99	625	36.76	919
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	9.40	761	14.50	1,175	23.90	1,936
11.40 Bathroom privacy latch sets.	24	set	9.40	226	16.70	401	26.10	626
11.50 Door closers (rated).	14	No.	14.30	200	30.99	434	45.29	634
SUBTOTAL - HARDWARE	2.22	/m2 GFA		1,481		2,634		4,115
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	22.49	3,081	23.80	3,261	46.29	6,342
SUBTOTAL - CERAMIC TILING	3.42	/m2 GFA		3,081		3,261		6,342

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD								
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906	m2	2.74	10,702	2.40	9,374	5.14	20,077
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734	m2	3.00	2,202	2.95	2,165	5.95	4,367
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487	m2	3.00	1,461	3.58	1,743	6.58	3,204
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63	m2	5.37	338	3.86	243	9.23	581
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887	m2	4.15	7,831	4.09	7,718	8.24	15,549
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4	m2	6.10	24	8.38	34	14.48	58
13.30 Tentest board, Crane 3-183 Redcliffe	524	m2	4.44	2,327	3.28	1,719	7.72	4,045
13.40 Finish to ceilings - textured	1,425	m2	1.38	1,967	1.29	1,838	2.67	3,805

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.36	485	0.24	323	0.60	808
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	1.05	764	4.49	3,269	5.54	4,033
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	1.05	953	4.49	4,077	5.54	5,030
SUBTOTAL - WALLBOARD	33.15 /m2 GFA		29,055		32,503		61,558
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.37	2,319	12.16	4,426	18.53	6,745
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.57	4,627	15.76	20,425	19.33	25,052
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	19.76	1,324	24.18	1,620	43.94	2,944
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	9.03	12,082	4.19	5,606	13.22	17,688
SUBTOTAL - FLOORING	28.23 /m2 GFA		20,351		32,077		52,428

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	4.68	122	1.27	33	5.95	155
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.57	1,229	0.91	713	2.48	1,942
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.48	12,886	0.74	3,845	3.22	16,731
15.30 Two coats urethane varnish on doors and frames.	105	No.	27.00	2,835	6.32	664	33.32	3,499
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.80	1,862	0.19	442	0.99	2,305
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.38	224	0.46	43	2.84	267
SUBTOTAL - PAINTING	13.41	/m2 GFA		19,158		5,740		24,898
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	4.02	430	6.52	698	10.54	1,128

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	32.25	6,289	240.00	46,800	272.25	53,089
SUBTOTAL - FITTINGS	29.20 /m2 GFA		6,719		47,498		54,217
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.72	645	9.24	887	15.96	1,532
17.20 Medicine cabinet	24 No.	12.50	300	66.72	1,601	79.22	1,901
17.30 25 mm dia. chrome shower curtain rod.	24 No.	4.91	118	6.93	166	11.84	284
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	62.40	62	408.00	408	470.40	470
17.50 18 mm dia. chrome coat rods.	24 No.	4.10	98	5.78	139	9.88	237
17.60 Drapery tracks.	102 m	3.66	373	9.01	919	12.67	1,292

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	12.75	1,250	46.45	4,552	59.20	5,802
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	12.75	842	34.40	2,270	47.15	3,112
17.90 50 mm dia. pipe handrail and brackets.	54	m	26.00	1,404	47.35	2,557	73.35	3,961
SUBTOTAL - SPECIALTIES	10.01	/m2 GFA		5,092		13,500		18,592
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	18.75	450	539.00	12,936	557.75	13,386
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	18.75	450	636.00	15,264	654.75	15,714
18.30 Range hood	24	No.	18.75	450	110.00	2,640	128.75	3,090
18.40 Coin operated dryer.	2	No.	19.50	39	625.00	1,250	644.50	1,289
18.50 Coin operated washer.	2	No.	19.50	39	815.00	1,630	834.50	1,669
SUBTOTAL - APPLIANCES	18.93	/m2 GFA		1,428		33,720		35,148

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING								
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24	apt.	694.00	16,656	2,079.00	49,896	2,773.00	66,552
SUBTOTAL - PLUMBING	35.84	/m2 GFA		16,656		49,896		66,552
20. HEATING								
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24	apt.	362.00	8,688	882.00	21,168	1,244.00	29,856
SUBTOTAL - HEATING	16.08	/m2 GFA		8,688		21,168		29,856

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION							
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24 apt.	97.00	2,328	281.00	6,744	378.00	9,072
SUBTOTAL - VENTILATION	4.89 /m2 GFA		2,328		6,744		9,072
22. FIRE PROTECTION							
22.10 Fire protection system, complete for 24-unit apartment building.	24 apt.	35.00	840	62.00	1,488	97.00	2,328
SUBTOTAL - FIRE PROTECTION	1.25 /m2 GFA		840		1,488		2,328
23. ELECTRICAL							
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24 apt.	836.00	20,064	1,156.00	27,744	1,992.00	47,808
SUBTOTAL - ELECTRICAL	25.74 /m2 GFA		20,064		27,744		47,808

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LETHBRIDGE

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads							
- setup							
- supervision							
- plant							
- site office							
- small tools							
- security							
- boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit							
- permits							
- bonds							
- insurance							
- office overhead							
- profit	24 apt.	747.00	17,928	391.00	9,384	1,138.00	27,312
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	14.71 /m2 GFA		17,928		9,384		27,312
TOTAL - LETHBRIDGE	430.79 /m2 GFA		280,749		519,219		799,968

DETAILED COST ESTIMATES FOR MEDICINE HAT

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.61	544	1.02	909	1.63	1,452
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.58	109	0.98	184	1.56	293
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.46	242	9.89	692	13.35	935
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	0.95	476	0.29	145	1.24	621
	SUBTOTAL - EXCAVATION	1.78	/m2 GFA		1,371		1,931		3,302
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	117.60	6,821	117.60	6,821
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.78	1,289	0.78	1,289
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	7.47	1,658	2.40	533	9.87	2,191

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	21.41	2,055	8.21	788	29.62	2,844
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.43	2,020	8.80	4,013	13.23	6,033
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.14	1,432	3.14	1,432
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.36	276	4.87	570	7.23	846
2.60	Parging to concrete walls.	29	m2	10.29	298	3.30	96	13.59	394
	SUBTOTAL - CONCRETE	11.77	/m2 GFA		6,308		15,540		21,848
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.39	62	0.33	52	0.72	114
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	4.18	401	4.54	436	8.72	837
	SUBTOTAL - DAMPROOFING	0.51	/m2 GFA		463		488		951

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	5.12	502	13.21	1,295	18.33	1,796
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.80	560	1.34	938	2.14	1,498
4.50	Stucco on wire mesh incl. building paper.	678 m2	13.51	9,160	7.24	4,909	20.75	14,069
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	4.85	286	14.69	867	19.54	1,153
	SUBTOTAL - SIDING	9.97 /m2 GFA		10,508		8,008		18,516
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	22.03	11,610	18.16	9,570	40.19	21,180
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.90	1,001	8.42	4,437	10.32	5,439
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.30	174	0.24	139	0.54	313
5.50	Prefinished flashing over window.	66 m	1.51	100	4.72	312	6.23	411
	SUBTOTAL - ROOFING/SHEET METAL	14.72 /m2 GFA		12,885		14,458		27,343

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.	CARPENTRY (ROUGH)							
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	823.00	31,274	823.00	31,274
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	615.00	27,060	615.00	27,060
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	11.10	45,177	11.10	45,177
6.40	Labour Only - complete framing including installation of windows.	1,857 m2	25.47	47,298	0.00	0	25.47	47,298

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99	m	0.48	48	0.76	75	1.24	123
	SUBTOTAL - CARPENTRY (ROUGH)	81.28	/m2 GFA		47,345		103,586		150,931
	7. CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2	No.	712.00	1,424	440.00	880	1,152.00	2,304
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314	m	1.28	4,242	1.34	4,441	2.62	8,683
	SUBTOTAL - CARPENTRY (FINISH)	5.92	/m2 GFA		5,666		5,321		10,987
	8. WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18	No.	0.00	0	977.00	17,586	977.00	17,586
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4	No.	0.00	0	946.00	3,784	946.00	3,784
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6	No.	0.00	0	270.00	1,620	270.00	1,620

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40	Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	184.00	5,152	184.00	5,152
8.50	Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	151.00	453	151.00	453
	SUBTOTAL - WINDOWS AND GLAZING	15.40 /m2 GFA		0		28,595		28,595
9.	SEALANTS							
9.10	Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.44	319	0.25	181	0.69	500
9.20	Caulk (interior) - ceramic tile	227 m	1.21	275	0.59	134	1.80	409
	SUBTOTAL - SEALANTS	0.49 /m2 GFA		594		315		909
10.	Doors							
10.03	Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	271.00	813	1,797.00	5,391	2,068.00	6,204

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8	No.	216.00	1,728	1,251.00	10,008	1,467.00	11,736
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50	No.	25.20	1,260	189.00	9,450	214.20	10,710
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1	No.	25.20	25	239.00	239	264.20	264
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48	No.	13.91	668	41.99	2,016	55.90	2,683
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1	No.	25.20	25	223.00	223	248.20	248

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	13.91	1,085	136.00	10,608	149.91	11,693
SUBTOTAL - DOORS	23.45	/m2 GFA		5,604		37,935		43,539
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	13.05	326	25.99	650	39.04	976
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	9.63	780	13.65	1,106	23.28	1,886
11.40 Bathroom privacy latch sets.	24	set	9.63	231	15.75	378	25.38	609
11.50 Door closers (rated).	14	No.	14.71	206	32.30	452	47.01	658
SUBTOTAL - HARDWARE	2.22	/m2 GFA		1,543		2,586		4,129
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	24.85	3,404	23.79	3,259	48.64	6,664
SUBTOTAL - CERAMIC TILING	3.59	/m2 GFA		3,404		3,259		6,663

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD							
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906 m2	2.83	11,054	2.40	9,374	5.23	20,428
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734 m2	3.06	2,246	2.98	2,187	6.04	4,433
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487 m2	3.06	1,490	3.67	1,787	6.73	3,278
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63 m2	5.65	356	3.92	247	9.57	603
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887 m2	4.29	8,095	4.17	7,869	8.46	15,964
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4 m2	6.40	26	8.42	34	14.82	59
13.30 Tentest board, Crane 3-183 Redcliffe	524 m2	4.76	2,494	3.32	1,740	8.08	4,234
13.40 Finish to ceilings - textured	1,425 m2	1.43	2,038	1.31	1,867	2.74	3,905

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.37	498	0.24	323	0.61	821
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	1.07	779	4.41	3,210	5.48	3,989
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	1.07	972	4.41	4,004	5.48	4,976
SUBTOTAL - WALLBOARD	33.76 /m2 GFA		30,048		32,643		62,691
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.52	2,373	12.57	4,575	19.09	6,949
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	4.23	5,482	15.96	20,684	20.19	26,166
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	20.54	1,376	24.40	1,635	44.94	3,011
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	9.15	12,243	4.22	5,646	13.37	17,889
SUBTOTAL - FLOORING	29.09 /m2 GFA		21,474		32,541		54,015

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	4.94	128	1.37	36	6.31	164
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	2.04	1,597	0.91	713	2.95	2,310
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.42	12,574	0.74	3,845	3.16	16,419
15.30 Two coats urethane varnish on doors and frames.	105	No.	27.00	2,835	6.81	715	33.81	3,550
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.96	2,235	0.21	489	1.17	2,724
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.73	257	0.46	43	3.19	300
SUBTOTAL - PAINTING	13.71	/m2 GFA		19,627		5,840		25,467
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	4.50	482	6.29	673	10.79	1,155

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	35.16	6,856	232.00	45,240	267.16	52,096
SUBTOTAL - FITTINGS	28.68 /m2 GFA		7,338		45,913		53,251
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.91	663	9.25	888	16.16	1,551
17.20 Medicine cabinet	24 No.	12.85	308	66.72	1,601	79.57	1,910
17.30 25 mm dia. chrome shower curtain rod.	24 No.	5.05	121	6.93	166	11.98	288
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	65.59	66	425.00	425	490.59	491
17.50 18 mm dia. chrome coat rods.	24 No.	4.25	102	5.78	139	10.03	241
17.60 Drapery tracks.	102 m	3.90	398	9.03	921	12.93	1,319

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal railing c/w balusters 100 mm o.c. max. to balconies.	98	m	13.38	1,311	47.19	4,625	60.57	5,936
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	13.38	883	41.71	2,753	55.09	3,636
17.90 50 mm dia. pipe handrail and brackets.	54	m	27.29	1,474	47.93	2,588	75.22	4,062
SUBTOTAL - SPECIALTIES	10.46	/m2 GFA		5,326		14,106		19,432
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	19.50	468	539.00	12,936	558.50	13,404
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	19.50	468	636.00	15,264	655.50	15,732
18.30 Range hood	24	No.	19.50	468	110.00	2,640	129.50	3,108
18.40 Coin operated dryer.	2	No.	21.00	42	625.00	1,250	646.00	1,292
18.50 Coin operated washer.	2	No.	21.00	42	815.00	1,630	836.00	1,672
SUBTOTAL - APPLIANCES	18.96	/m2 GFA		1,488		33,720		35,208

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	706.00	16,944	2,153.00	51,672	2,859.00	68,616
SUBTOTAL - PLUMBING	36.95 /m2 GFA		16,944		51,672		68,616
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	477.00	11,448	935.00	22,440	1,412.00	33,888
SUBTOTAL - HEATING	18.25 /m2 GFA		11,448		22,440		33,888

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION								
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24	apt.	99.00	2,376	282.00	6,768	381.00	9,144
SUBTOTAL - VENTILATION	4.92	/m2 GFA		2,376		6,768		9,144
22. FIRE PROTECTION								
22.10 Fire protection system, complete for 24-unit apartment building.	24	apt.	36.00	864	64.00	1,536	100.00	2,400
SUBTOTAL - FIRE PROTECTION	1.29	/m2 GFA		864		1,536		2,400
23. ELECTRICAL								
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24	apt.	904.00	21,696	1,285.00	30,840	2,189.00	52,536
SUBTOTAL - ELECTRICAL	28.29	/m2 GFA		21,696		30,840		52,536

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

MEDICINE HAT

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS								
24.10 Site Overheads								
- setup								
- supervision								
- plant								
- site office								
- small tools								
- security								
- boarding, etc.	24	apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93	/m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT								
25.10 General Contractor's Overhead & Profit								
- permits								
- bonds								
- insurance								
- office overhead								
- profit	24	apt.	782.00	18,768	392.00	9,408	1,174.00	28,176
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	15.17	/m2 GFA		18,768		9,408		28,176
TOTAL - MEDICINE HAT	437.55	/m2 GFA		286,400		526,137		812,537

DETAILED COST ESTIMATES FOR LLOYDMINSTER

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.43	383	1.58	1,408	2.01	1,791
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.39	73	1.40	263	1.79	337
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.15	221	10.60	742	13.75	963
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	0.89	446	0.30	150	1.19	596
	SUBTOTAL - EXCAVATION	1.98	/m2 GFA		1,123		2,563		3,686
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	120.16	6,969	120.16	6,969
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.80	1,322	0.80	1,322
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	5.73	1,272	2.17	482	7.90	1,754

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96 m	15.64	1,501	6.77	650	22.41	2,151
2.40	90 mm concrete (20 MPa) in slab on grade.	456 m2	3.24	1,477	9.02	4,113	12.26	5,591
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456 m2	0.00	0	3.28	1,496	3.28	1,496
2.55	38 mm thick rigid insulation to concrete wall (basement).	117 m2	2.09	245	4.63	542	6.72	786
2.60	Parging to concrete walls.	29 m2	8.90	258	3.68	107	12.58	365
	SUBTOTAL - CONCRETE	11.00 /m2 GFA		4,754		15,680		20,434
3.	DAMPROOFING							
3.10	Two coats asphaltic emulsion on concrete walls.	159 m2	0.29	46	0.29	46	0.58	92
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96 m	3.60	346	4.64	445	8.24	791
	SUBTOTAL - DAMPROOFING	0.48 /m2 GFA		392		492		884

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	5.88	576	15.01	1,471	20.89	2,047
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.75	525	1.28	896	2.03	1,421
4.50	Stucco on wire mesh incl. building paper.	678 m2	13.54	9,180	6.98	4,732	20.52	13,913
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	5.96	352	13.15	776	19.11	1,127
	SUBTOTAL - SIDING	9.97 /m2 GFA		10,633		7,875		18,508
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	21.20	11,172	21.05	11,093	42.25	22,266
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.62	854	8.70	4,585	10.32	5,439
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.26	151	0.24	139	0.50	290
5.50	Prefinished flashing over window.	66 m	1.83	121	4.01	265	5.84	385
	SUBTOTAL - ROOFING/SHEET METAL	15.28 /m2 GFA		12,298		16,082		28,380

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.	CARPENTRY (ROUGH)							
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	817.50	31,065	817.50	31,065
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	613.65	27,001	613.65	27,001
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	11.86	48,270	11.86	48,270
6.40	Labour Only - complete framing including installation of windows.	1,857 m2	24.52	45,534	0.00	0	24.52	45,534

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99 m	0.46	46	0.75	74	1.21	120
	SUBTOTAL - CARPENTRY (ROUGH)	81.85 /m2 GFA		45,579		106,410		151,989
7. CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2 No.	588.00	1,176	416.60	833	1,004.60	2,009
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314 m	1.30	4,308	1.36	4,507	2.66	8,815
	SUBTOTAL - CARPENTRY (FINISH)	5.83 /m2 GFA		5,484		5,340		10,824
8. WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18 No.	0.00	0	972.00	17,496	972.00	17,496
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4 No.	0.00	0	931.00	3,724	931.00	3,724
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6 No.	0.00	0	260.00	1,560	260.00	1,560

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40	Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28	No.	0.00	0	175.00	4,900	175.00	4,900
8.50	Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3	No.	0.00	0	143.00	429	143.00	429
	SUBTOTAL - WINDOWS AND GLAZING	15.14	/m2 GFA		0		28,109		28,109
9. SEALANTS									
9.10	Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725	m	0.41	297	0.28	203	0.69	500
9.20	Caulk (interior) - ceramic tile	227	m	1.08	245	0.58	132	1.66	377
	SUBTOTAL - SEALANTS	0.47	/m2 GFA		542		335		877
10. Doors									
10.03	Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3	No	254.00	762	1,850.00	5,550	2,104.00	6,312

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8 No.	196.00	1,568	1,303.00	10,424	1,499.00	11,992
10.09 Solid core door and frame, rotary cut mahogany - 24 No. ,9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50 No.	23.00	1,150	221.00	11,050	244.00	12,200
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1 No.	23.00	23	274.00	274	297.00	297
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48 No.	12.75	612	48.75	2,340	61.50	2,952
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1 No.	23.00	23	240.00	240	263.00	263

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	12.75	995	140.00	10,920	152.75	11,915
SUBTOTAL - DOORS	24.73	/m2 GFA		5,133		40,798		45,931
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	12.00	300	25.25	631	37.25	931
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	8.25	668	13.77	1,115	22.02	1,784
11.40 Bathroom privacy latch sets.	24	set	8.25	198	15.89	381	24.14	579
11.50 Door closers (rated).	14	No.	13.75	193	30.45	426	44.20	619
SUBTOTAL - HARDWARE	2.11	/m2 GFA		1,359		2,554		3,913
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	30.00	4,110	24.37	3,339	54.37	7,449
SUBTOTAL - CERAMIC TILING	4.01	/m2 GFA		4,110		3,339		7,449

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD								
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906	m2	3.44	13,437	2.40	9,374	5.84	22,811
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734	m2	3.80	2,789	2.86	2,099	6.66	4,888
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487	m2	3.80	1,851	3.47	1,690	7.27	3,540
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63	m2	5.86	369	3.68	232	9.54	601
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887	m2	4.82	9,095	4.05	7,642	8.87	16,738
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4	m2	7.83	31	8.00	32	15.83	63
13.30 Tentest board, Crane 3-183 Redcliffe	524	m2	4.32	2,264	3.47	1,818	7.79	4,082
13.40 Finish to ceilings - textured	1,425	m2	1.37	1,952	1.17	1,667	2.54	3,620

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.26	350	0.24	323	0.50	673
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	0.80	582	4.49	3,269	5.29	3,851
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	0.80	726	4.49	4,077	5.29	4,803
SUBTOTAL - WALLBOARD	35.36 /m2 GFA		33,447		32,224		65,671
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.04	2,199	12.25	4,459	18.29	6,658
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.60	4,666	15.45	20,023	19.05	24,689
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	19.46	1,304	25.26	1,692	44.72	2,996
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.10	10,838	4.23	5,660	12.33	16,498
SUBTOTAL - FLOORING	27.38 /m2 GFA		19,006		31,834		50,840

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	4.43	115	1.22	32	5.65	147
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.51	1,182	0.92	720	2.43	1,903
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.24	11,639	0.69	3,585	2.93	15,224
15.30 Two coats urethane varnish on doors and frames.	105	No.	24.00	2,520	5.78	607	29.78	3,127
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.80	1,862	0.19	442	0.99	2,305
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.36	222	0.46	43	2.82	265
SUBTOTAL - PAINTING	12.37	/m2 GFA		17,541		5,430		22,971
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	3.42	366	6.21	664	9.63	1,030

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	31.80	6,201	217.00	42,315	248.80	48,516
SUBTOTAL - FITTINGS	26.68 /m2 GFA		6,567		42,979		49,546
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	5.75	552	9.25	888	15.00	1,440
17.20 Medicine cabinet	24 No.	11.50	276	61.90	1,486	73.40	1,762
17.30 25 mm dia. chrome shower curtain rod.	24 No.	6.25	150	6.81	163	13.06	313
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	59.75	60	425.00	425	484.75	485
17.50 18 mm dia. chrome coat rods.	24 No.	3.50	84	5.05	121	8.55	205
17.60 Drapery tracks.	102 m	3.61	368	9.28	947	12.89	1,315

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	11.50	1,127	46.75	4,582	58.25	5,709
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	11.50	759	41.48	2,738	52.98	3,497
17.90 50 mm dia. pipe handrail and brackets.	54	m	24.75	1,337	47.79	2,581	72.54	3,917
SUBTOTAL - SPECIALTIES	10.04	/m2 GFA		4,712		13,930		18,642
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	16.75	402	527.00	12,648	543.75	13,050
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	16.75	402	636.00	15,264	652.75	15,666
18.30 Range hood	24	No.	16.75	402	104.00	2,496	120.75	2,898
18.40 Coin operated dryer.	2	No.	20.00	40	625.00	1,250	645.00	1,290
18.50 Coin operated washer.	2	No.	20.00	40	815.00	1,630	835.00	1,670
SUBTOTAL - APPLIANCES	18.62	/m2 GFA		1,286		33,288		34,574

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	610.00	14,640	2,070.00	49,680	2,680.00	64,320
SUBTOTAL - PLUMBING	34.64 /m2 GFA		14,640		49,680		64,320
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	592.00	14,208	1,302.00	31,248	1,894.00	45,456
SUBTOTAL - HEATING	24.48 /m2 GFA		14,208		31,248		45,456

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION								
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24	apt.	96.00	2,304	302.00	7,248	398.00	9,552
SUBTOTAL - VENTILATION	5.14	/m2 GFA		2,304		7,248		9,552
22. FIRE PROTECTION								
22.10 Fire protection system, complete for 24-unit apartment building.	24	apt.	40.00	960	80.00	1,920	120.00	2,880
SUBTOTAL - FIRE PROTECTION	1.55	/m2 GFA		960		1,920		2,880
23. ELECTRICAL								
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24	apt.	1,060.00	25,440	1,525.00	36,600	2,585.00	62,040
SUBTOTAL - ELECTRICAL	33.41	/m2 GFA		25,440		36,600		62,040

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS								
24.10 Site Overheads								
- setup								
- supervision								
- plant								
- site office								
- small tools								
- security								
- boarding, etc.	24	apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93	/m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT								
25.10 General Contractor's Overhead & Profit								
- permits								
- bonds								
- insurance								
- office overhead								
- profit	24	apt.	690.00	16,560	375.00	9,000	1,065.00	25,560
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	13.76	/m2 GFA		16,560		9,000		25,560
TOTAL - LLOYDMINSTER	443.21	/m2 GFA		281,390		541,646		823,036

DETAILED COST ESTIMATES FOR PEACE RIVER

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION								
1.10 Excavate for basement, wall footings, and bases.	891	m3	0.65	579	1.09	971	1.74	1,550
1.20 Backfill to basement walls, footings, and bases.	188	m3	0.61	115	0.99	186	1.60	301
1.30 150 mm gravel or sand bed under slab on grade.	70	m3	3.47	243	12.28	860	15.75	1,103
1.40 .152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	1.03	516	0.31	155	1.34	671
SUBTOTAL - EXCAVATION	1.95	/m2 GFA		1,453		2,172		3,625
2. CONCRETE								
2.10 25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	116.72	6,770	116.72	6,770
2.20 Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.80	1,322	0.80	1,322
2.30 Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	6.86	1,523	3.04	675	9.90	2,198

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	18.95	1,819	9.58	920	28.53	2,739
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.24	1,933	9.51	4,337	13.75	6,270
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.44	1,569	3.44	1,569
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.50	293	5.03	589	7.53	881
2.60	Parging to concrete walls.	29	m2	9.95	289	4.45	129	14.40	418
	SUBTOTAL - CONCRETE	11.94	/m2 GFA		5,857		16,309		22,166
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.40	64	0.39	62	0.79	126
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	6.62	636	4.61	443	11.23	1,078
	SUBTOTAL - DAMPROOFING	0.65	/m2 GFA		699		505		1,204

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	7.14	700	15.77	1,545	22.91	2,245
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.83	581	1.20	840	2.03	1,421
4.50	Stucco on wire mesh incl. building paper.	678 m2	15.35	10,407	8.20	5,560	23.55	15,967
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	5.70	336	12.37	730	18.07	1,066
	SUBTOTAL - SIDING	11.15 /m2 GFA		12,024		8,675		20,699
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	24.69	13,012	19.80	10,435	44.49	23,446
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.95	1,028	7.70	4,058	9.65	5,086
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.38	220	0.24	139	0.62	360
5.50	Prefinished flashing over window.	66 m	2.11	139	3.62	239	5.73	378
	SUBTOTAL - ROOFING/SHEET METAL	15.76 /m2 GFA		14,399		14,871		29.270

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6. CARPENTRY (ROUGH)								
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0 MFBM	0.00	0	822.00	31,236	822.00	31,236
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0 MFBM	0.00	0	617.00	27,148	617.00	27,148
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070 m2	0.00	0	10.95	44,567	10.95	44,567
6.40	Labour Only - complete framing including installation of windows.	1,857 m2	31.80	59,053	0.00	0	31.80	59,053

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99 m	0.49	49	0.71	70	1.20	119
	SUBTOTAL - CARPENTRY (ROUGH)	87.30 /m2 GFA		59,101		103,021		162,122
7. CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2 No.	567.00	1,134	484.00	968	1,051.00	2,102
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314 m	1.68	5,568	1.29	4,275	2.97	9,843
	SUBTOTAL - CARPENTRY (FINISH)	6.43 /m2 GFA		6,702		5,243		11,945
8. WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18 No.	0.00	0	1,046.00	18,828	1,046.00	18,928
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4 No.	0.00	0	1,023.00	4,092	1,023.00	4,092
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6 No.	0.00	0	293.00	1,758	293.00	1,758

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40 Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28 No.	0.00	0	196.00	5,488	196.00	5,488
8.50 Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3 No.	0.00	0	160.00	480	160.00	480
SUBTOTAL - WINDOWS AND GLAZING	16.50 /m2 GFA		0		30,646		30,646
9. SEALANTS							
9.10 Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725 m	0.44	319	0.29	210	0.73	529
9.20 Caulk (interior) - ceramic tile	227 m	1.22	277	0.61	138	1.83	415
SUBTOTAL - SEALANTS	0.51 /m2 GFA		596		349		945
10. Doors							
10.03 Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3 No	287.00	861	1,940.00	5,820	2,227.00	6,681

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8 No.	219.00	1,752	1,355.00	10,840	1,574.00	12,592
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50 No.	28.40	1,420	233.00	11,650	261.40	13,070
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1 No.	27.40	27	289.00	289	316.40	316
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48 No.	15.75	756	50.25	2,412	66.00	3,168
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1 No.	28.40	28	252.00	252	280.40	280

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78	No.	15.35	1,197	157.00	12,246	172.35	13,443
SUBTOTAL - DOORS	26.68	/m2 GFA		6,042		43,509		49,551
11. HARDWARE								
11.15 Lock sets to interior doors.	25	set	14.20	355	28.37	709	42.57	1,064
11.25 Butts to interior doors. (included with frames)	129	pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81	set	9.20	745	13.91	1,127	23.11	1,872
11.40 Bathroom privacy latch sets.	24	set	9.20	221	16.10	386	25.30	607
11.50 Door closers (rated).	14	No.	16.40	230	30.31	424	46.71	654
SUBTOTAL - HARDWARE	2.26	/m2 GFA		1,551		2,647		4,198
12. CERAMIC TILING								
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137	m2	30.70	4,206	20.21	2,769	50.91	6,975
SUBTOTAL - CERAMIC TILING	3.76	/m2 GFA		4,206		2,769		6,975

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD							
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906 m2	3.12	12,187	2.77	10,820	5.89	23,006
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734 m2	3.37	2,474	3.37	2,474	6.74	4,947
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487 m2	3.37	1,641	4.14	2,016	7.51	3,657
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63 m2	5.90	372	4.37	275	10.27	647
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,887 m2	4.59	8,661	4.74	8,944	9.33	17,606
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4 m2	7.06	28	9.60	38	16.66	67
13.30 Tentest board, Crane 3-183 Redcliffe	524 m2	4.95	2,594	3.74	1,960	8.69	4,554
13.40 Finish to ceilings - textured	1,425 m2	1.51	2,152	1.47	2,095	2.98	4,247

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.26	350	0.24	323	0.50	673
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	0.80	582	4.49	3,269	5.29	3,851
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	0.80	726	4.49	4,077	5.29	4,803
SUBTOTAL - WALLBOARD	35.36 /m2 GFA		33,447		32,224		65,671
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.04	2,199	12.25	4,459	18.29	6,658
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.60	4,666	15.45	20,023	19.05	24,689
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	19.46	1,304	25.26	1,692	44.72	2,996
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.10	10,838	4.23	5,660	12.33	16,498
SUBTOTAL - FLOORING	27.38 /m2 GFA		19,006		31,834		50,840

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	4.43	115	1.22	32	5.65	147
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.51	1,182	0.92	720	2.43	1,903
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.24	11,639	0.69	3,585	2.93	15,224
15.30 Two coats urethane varnish on doors and frames.	105	No.	24.00	2,520	5.78	607	29.78	3,127
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.80	1,862	0.19	442	0.99	2,305
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.36	222	0.46	43	2.82	265
SUBTOTAL - PAINTING	12.37	/m2 GFA		17,541		5,430		22,971
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	3.42	366	6.21	664	9.63	1,030

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	31.80	6,201	217.00	42,315	248.80	48,516
SUBTOTAL - FITTINGS	26.68 /m2 GFA		6,567		42,979		49,546
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	5.75	552	9.25	888	15.00	1,440
17.20 Medicine cabinet	24 No.	11.50	276	61.90	1,486	73.40	1,762
17.30 25 mm dia. chrome shower curtain rod.	24 No.	6.25	150	6.81	163	13.06	313
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	59.75	60	425.00	425	484.75	485
17.50 18 mm dia. chrome coat rods.	24 No.	3.50	84	5.05	121	8.55	205
17.60 Drapery tracks.	102 m	3.61	368	9.28	947	12.89	1,315

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal balustrade to balconies c/w balusters 100 mm o.c.	98	m	11.50	1,127	46.75	4,582	58.25	5,709
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	11.50	759	41.48	2,738	52.98	3,497
17.90 50 mm dia. pipe handrail and brackets.	54	m	24.75	1,337	47.79	2,581	72.54	3,917
SUBTOTAL - SPECIALTIES	10.04	/m2 GFA		4,712		13,930		18,642
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	16.75	402	527.00	12,648	543.75	13,050
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	16.75	402	636.00	15,264	652.75	15,666
18.30 Range hood	24	No.	16.75	402	104.00	2,496	120.75	2,898
18.40 Coin operated dryer.	2	No.	20.00	40	625.00	1,250	645.00	1,290
18.50 Coin operated washer.	2	No.	20.00	40	815.00	1,630	835.00	1,670
SUBTOTAL - APPLIANCES	18.62	/m2 GFA		1,286		33,288		34,574

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	610.00	14,640	2,070.00	49,680	2,680.00	64,320
SUBTOTAL - PLUMBING	34.64 /m2 GFA		14,640		49,680		64,320
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	592.00	14,208	1,302.00	31,248	1,894.00	45,456
SUBTOTAL - HEATING	24.48 /m2 GFA		14,208		31,248		45,456

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION							
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24 apt.	96.00	2,304	302.00	7,248	398.00	9,552
SUBTOTAL - VENTILATION	5.14 /m2 GFA		2,304		7,248		9,552
22. FIRE PROTECTION							
22.10 Fire protection system, complete for 24-unit apartment building.	24 apt.	40.00	960	80.00	1,920	120.00	2,880
SUBTOTAL - FIRE PROTECTION	1.55 /m2 GFA		960		1,920		2,880
23. ELECTRICAL							
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24 apt.	1,060.00	25,440	1,525.00	36,600	2,585.00	62,040
SUBTOTAL - ELECTRICAL	33.41 /m2 GFA		25,440		36,600		62,040

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

LLOYDMINSTER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads - setup - supervision - plant - site office - small tools - security - boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit - permits - bonds - insurance - office overhead - profit	24 apt.	690.00	16,560	375.00	9,000	1,065.00	25,560
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	13.76 /m2 GFA		16,560		9,000		25,560
TOTAL - LLOYDMINSTER	443.21 /m2 GFA		281,390		541,646		823,036

DETAILED COST ESTIMATES FOR PEACE RIVER

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
1. EXCAVATION									
1.10	Excavate for basement, wall footings, and bases.	891	m3	0.65	579	1.09	971	1.74	1,550
1.20	Backfill to basement walls, footings, and bases.	188	m3	0.61	115	0.99	186	1.60	301
1.30	150 mm gravel or sand bed under slab on grade.	70	m3	3.47	243	12.28	860	15.75	1,103
1.40	.152 mm polyethylene vapour barrier on gravel or sand bed.	501	m2	1.03	516	0.31	155	1.34	671
	SUBTOTAL - EXCAVATION	1.95	/m2 GFA		1,453		2,172		3,625
2. CONCRETE									
2.10	25 MPa concrete in footings and basement walls (material only) 200 mm reinforced concrete wall, 250 x 560 mm reinforced concrete footing.	58	m3	0.00	0	116.72	6,770	116.72	6,770
2.20	Reinforcing steel in footings and basement walls (material only).	1,652	kg	0.00	0	0.80	1,322	0.80	1,322
2.30	Form, place rebar and pour concrete in footing (560 x 250 mm) -subcontract	222	m	6.86	1,523	3.04	675	9.90	2,198

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
2.35	Form, place rebar, and pour concrete in basement wall (1.2 m high) (subcontract)	96	m	18.95	1,819	9.58	920	28.53	2,739
2.40	90 mm concrete (20 MPa) in slab on grade.	456	m2	4.24	1,933	9.51	4,337	13.75	6,270
2.45	150 x 150 mm welded wire mesh reinforcement to slab on grade (material only).	456	m2	0.00	0	3.44	1,569	3.44	1,569
2.55	38 mm thick rigid insulation to concrete wall (basement).	117	m2	2.50	293	5.03	589	7.53	881
2.60	Parging to concrete walls.	29	m2	9.95	289	4.45	129	14.40	418
	SUBTOTAL - CONCRETE	11.94	/m2 GFA		5,857		16,309		22,166
3.	DAMPROOFING								
3.10	Two coats asphaltic emulsion on concrete walls.	159	m2	0.40	64	0.39	62	0.79	126
3.20	100 mm perforated plastic weeping tile in crushed gravel surround.	96	m	6.62	636	4.61	443	11.23	1,078
	SUBTOTAL - DAMPROOFING	0.65	/m2 GFA		699		505		1,204

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
4. SIDING								
4.10	Prefinished aluminum siding	98 m2	7.14	700	15.77	1,545	22.91	2,245
4.40	Stained dark-brown cedar siding 25 x 150 mm channel to column.	700 FBM	0.83	581	1.20	840	2.03	1,421
4.50	Stucco on wire mesh incl. building paper.	678 m2	15.35	10,407	8.20	5,560	23.55	15,967
4.60	24 ga. aluminum vented metal soffit c/w edge moulding.	59 m2	5.70	336	12.37	730	18.07	1,066
	SUBTOTAL - SIDING	11.15 /m2 GFA		12,024		8,675		20,699
5. ROOFING/SHEET METAL								
5.10	Built-up asphalt roofing completed with mineral granular and flashing.	527 m2	24.69	13,012	19.80	10,435	44.49	23,446
5.30	R.S.I. 6 (R34) batt insulation in joist space.	527 m2	1.95	1,028	7.70	4,058	9.65	5,086
5.40	.102 mm polyethylene vapour barrier.	580 m2	0.38	220	0.24	139	0.62	360
5.50	Prefinished flashing over window.	66 m	2.11	139	3.62	239	5.73	378
	SUBTOTAL - ROOFING/SHEET METAL	15.76 /m2 GFA		14,399		14,871		29.270

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6. CARPENTRY (ROUGH)									
6.10	Material Only No. 2 grade fir or spruce as below floor joists (38 x 235 mm) - fir built-up beam (3-38 x 235 mm) - fir built-up beam (2-38 x 235 mm) - fir roof joist (38 x 235 mm) - spruce	38.0	MFBM	0.00	0	822.00	31,236	822.00	31,236
6.20	Material Only No. 2 grade fir or spruce as below framing (38 x140 mm) - fir plate (38 x 140 mm) - fir cross bridging (38 x 38 mm) - spruce framing (38 x 89 mm) - spruce framing (38 x 140 mm) - spruce blocking (38 x 89 mm) - spruce blocking (38 x 140 mm) - spruce wall strapping (38 x 38 mm) - spruce fascia (19 x 140 mm) - spruce	44.0	MFBM	0.00	0	617.00	27,148	617.00	27,148
6.30	Material Only - Sheathing 19 mm plywood (floor underlay) 1432 m2 13 mm tentest (u/s of joist) 1368 m2 10 mm plywood (roof sheathing) 524 m2 13 mm plywood (wall sheathing - protection board 350mm high) 19 m2 8 mm plywood (wall sheathing) 727 m2	4,070	m2	0.00	0	10.95	44,567	10.95	44,567
6.40	Labour Only - complete framing including installation of windows.	1,857	m2	31.80	59,053	0.00	0	31.80	59,053

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
6.50	90 x 238 mm wide R.S.I. 2.1 (R12) batt insulation (vertical eaves).	99 m	0.49	49	0.71	70	1.20	119
	SUBTOTAL - CARPENTRY (ROUGH)	87.30 /m2 GFA		59,101		103,021		162,122
7. CARPENTRY (FINISH)								
7.10	Stair - 6 flights @ (2x6x8 = 96 risers) 38 x 300 mm stringers 59 m 38 x 235 mm treads 103 m 6 x 275 mm fir plywood in risers 115 m	2 No.	567.00	1,134	484.00	968	1,051.00	2,102
7.30	Select grade fir in window and door trim and base (40 x 12 mm) - window 431 m - door 555 m - base 2328 m	3,314 m	1.68	5,568	1.29	4,275	2.97	9,843
	SUBTOTAL - CARPENTRY (FINISH)	6.43 /m2 GFA		6,702		5,243		11,945
8. WINDOWS AND GLAZING								
8.10	Double-glazed patio door in wood frame with aluminum cladding and including hardware (size 2.4 x 1.8 m).	18 No.	0.00	0	1,046.00	18,828	1,046.00	18,928
8.20	Double-glazed wired glass sealed window in steel frame (size 2.4 x2.55 m).	4 No.	0.00	0	1,023.00	4,092	1,023.00	4,092
8.30	Double-glazed sliding units in wood frame (size 2.4 x .9 m) including aluminum sliders, screen, and hardware.	6 No.	0.00	0	293.00	1,758	293.00	1,758

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

		Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
8.40	Double-glazed sliding units in wood frame (size 1.5 x .9 m) including aluminum sliders, screen, and hardware.	28	No.	0.00	0	196.00	5,488	196.00	5,488
8.50	Double-glazed sliding units in wood frame (size .9 x .9 m) including aluminum sliders, screen, and hardware.	3	No.	0.00	0	160.00	480	160.00	480
	SUBTOTAL - WINDOWS AND GLAZING	16.50	/m2 GFA		0		30,646		30,646
9.	SEALANTS								
9.10	Caulk (exterior) (exterior doors, windows, junction of siding and concrete).	725	m	0.44	319	0.29	210	0.73	529
9.20	Caulk (interior) - ceramic tile	227	m	1.22	277	0.61	138	1.83	415
	SUBTOTAL - SEALANTS	0.51	/m2 GFA		596		349		945
10.	Doors								
10.03	Exterior - Aluminum entrance and sidelight, (size 2.4 x 2.1 m overall) including .9 x 2.1 m aluminum glazed door c/w door closer, push and pull, lock and aluminum threshold.	3	No	287.00	861	1,940.00	5,820	2,227.00	6,681

1989 ALBERTA HOUSE COST COMPARISON STUDY   SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA :   1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.06 Fire rated door and sidelight with 0.9 x 2.1 m, 20 min. label wood door and pressed steel frame including hardware and 6 mm wire glass to sidelight - 4 No. 1.9 x 2.1 m - 4 No. 1.4 x 2.1 m	8 No.	219.00	1,752	1,355.00	10,840	1,574.00	12,592
10.09 Solid core door and frame, rotary cut mahogany - 24 No. .9x2.1mx44mm (20 min. label) - 26 No. .85 x 2.1m x 44mm	50 No.	28.40	1,420	233.00	11,650	261.40	13,070
10.10 Solid core door and frame, rotary cut mahogany - 1 No. .9x2.1mx44mm (45 min. label)	1 No.	27.40	27	289.00	289	316.40	316
10.20 Hollow core door and frame, rotary cut mahogany face - 24 No. .70 x 2.0 m x 35mm - 24 No. .75 x 2.0 m x 35mm	48 No.	15.75	756	50.25	2,412	66.00	3,168
10.25 Metal door labelled (1 hour) c/w fire rated pressed steel frame - 1 No. .9 x 2.1 m x 45 mm	1 No.	28.40	28	252.00	252	280.40	280

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
10.30 Metal folding bi-fold doors, with tracks and pulls - 28 No. 1.8 x 2.0 m - 14 No. 1.5 x 2.0 m - 6 No. 1.2 x 2.0 m - 14 No. 0.9 x 2.0 m - 16 No. 0.6 x 2.0 m	78 No.	15.35	1,197	157.00	12,246	172.35	13,443
SUBTOTAL - DOORS	26.68 /m2 GFA		6,042		43,509		49,551
11. HARDWARE							
11.15 Lock sets to interior doors.	25 set	14.20	355	28.37	709	42.57	1,064
11.25 Butts to interior doors. (included with frames)	129 pair	0.00	0	0.00	0	0.00	0
11.30 Latch sets.	81 set	9.20	745	13.91	1,127	23.11	1,872
11.40 Bathroom privacy latch sets.	24 set	9.20	221	16.10	386	25.30	607
11.50 Door closers (rated).	14 No.	16.40	230	30.31	424	46.71	654
SUBTOTAL - HARDWARE	2.26 /m2 GFA		1,551		2,647		4,198
12. CERAMIC TILING							
12.10 Ceramic tile 100 x 100 x 6 mm thinset on drywall.	137 m2	30.70	4,206	20.21	2,769	50.91	6,975
SUBTOTAL - CERAMIC TILING	3.76 /m2 GFA		4,206		2,769		6,975

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13. WALLBOARD							
13.10 Gypsum wallboard (13mm standard) on walls, taped and sanded.	3,906 m2	3.12	12,187	2.77	10,820	5.89	23,006
13.13 Gypsum wallboard (13mm fire rated) taped and sanded. - walls 705 m2 - stair soffit 29 m2	734 m2	3.37	2,474	3.37	2,474	6.74	4,947
13.14 Gypsum wallboard (15.9 mm thick), taped and sanded.	487 m2	3.37	1,641	4.14	2,016	7.51	3,657
13.15 Gypsum wallboard (15.9mm fire rated) to shaft enclosure, taped and sanded.	63 m2	5.90	372	4.37	275	10.27	647
13.16 Gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling, taped and sanded.	1,867 m2	4.59	8,661	4.74	8,944	9.33	17,606
13.17 2 layers gypsum wallboard (15.9mm fire rated with sound barrier) on ceiling,taped and sanded.	4 m2	7.06	28	9.60	38	16.66	67
13.30 Tentest board, Crane 3-183 Redcliffe	524 m2	4.95	2,594	3.74	1,960	8.69	4,554
13.40 Finish to ceilings - textured	1,425 m2	1.51	2,152	1.47	2,095	2.98	4,247

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
13.70 .102 mm polyethylene vapour barrier.	1,346 m2	0.37	498	0.25	337	0.62	835
13.83 Batt insulation RSI - 3.5 (R20) to exterior walls.	728 m2	0.97	706	4.20	3,058	5.17	3,764
13.86 Batt insulation RSI - 3.5 (R20) to interior walls.	908 m2	0.97	881	4.20	3,814	5.17	4,694
SUBTOTAL - WALLBOARD	36.63 /m2 GFA		32,193		35,830		68,023
14. FLOORING							
14.10 Sheet vinyl flooring (.065 gauge) with adhesive to subfloor.	364 m2	6.79	2,472	13.04	4,747	19.83	7,218
14.20 20 oz, 100% Nylon carpet c/w 13 mm thick chip foam underlay.	1,296 m2	3.87	5,016	17.89	23,185	21.76	28,201
14.30 'Neoprene Hypalon' waterproofing or equal to balcony.	67 m2	18.25	1,223	23.88	1,600	42.13	2,823
14.40 Gypcrete floor topping including steel trowel finish.	1,338 m2	8.31	11,119	4.24	5,673	12.55	16,792
SUBTOTAL - FLOORING	29.64 /m2 GFA		19,829		35,205		55,034

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
15. PAINTING								
15.12 Exterior work - Prepare, prime, two coats enamel on fascia board to balconies and entrance canopy.	26	m2	5.54	144	1.31	34	6.85	178
15.14 Prepare, prime, two coats enamel on metal handrail and balustrade.	783	m	1.49	1,167	0.99	775	2.48	1,942
15.22 Interior work - Prepare, one coat primer sealer, one coat latex or semigloss paint on gypsum wallboard - walls 4962 m2 - ceiling 234 m2	5,196	m2	2.36	12,263	0.72	3,741	3.08	16,004
15.30 Two coats urethane varnish on doors and frames.	105	No.	28.50	2,993	6.32	664	34.82	3,656
15.40 Prepare, prime, one coat semigloss on base, door and window trim.	2,328	m	0.75	1,746	0.23	535	0.98	2,281
15.50 Prepare, prime, one coat semigloss on shelving.	94	m2	2.21	208	0.38	36	2.59	243
SUBTOTAL - PAINTING	13.09	/m2 GFA		18,520		5,785		24,305
16. FITTINGS								
16.10 Shelving - Douglas fir plywood, lipped one edge (20 mm thick x .45 m)	107	m	4.12	441	6.30	674	10.42	1,115

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
16.20 Vanity and cabinets, plastic laminated top to lower cabinets and c/w drawers, shelves, etc. - lower vanity and cupboard 27 m - wall units 99 m - worktop unit 69 m	195 m	38.85	7,576	247.00	48,165	285.85	55,741
SUBTOTAL - FITTINGS	30.62 /m2 GFA		8,017		48,839		56,856
17. SPECIALTIES							
17.10 Washroom accessories - 24 No. toilet paperholders - 24 No. soap dishes - 48 No. towel bars	96 No.	6.65	638	10.10	970	16.75	1,608
17.20 Medicine cabinet	24 No.	12.92	310	67.25	1,614	80.17	1,924
17.30 25 mm dia. chrome shower curtain rod.	24 No.	7.05	169	7.41	178	14.46	347
17.40 Mail box and house numbers (size .81 x .45 m) for 24 apts.	1 set	67.25	67	431.00	431	498.25	498
17.50 18 mm dia. chrome coat rods.	24 No.	4.36	105	6.28	151	10.64	255
17.60 Drapery tracks.	102 m	4.36	445	10.25	1,046	14.61	1,490

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
17.70 970 mm high metal railing c/w balusters 100 mm o.c. max. to balconies.	98	m	12.57	1,232	50.63	4,962	63.20	6,194
17.80 Metal balustrade to stairs c/w vinyl cap.	66	m	12.57	830	44.75	2,954	57.32	3,783
17.90 50 mm dia. pipe handrail and brackets.	54	m	28.65	1,547	51.70	2,792	80.35	4,339
SUBTOTAL - SPECIALTIES	11.01	/m2 GFA		5,343		15,096		20,439
18. APPLIANCES								
18.10 Freestanding range, 760 mm (30") top four surface elements, oven auto timer.	24	No.	21.00	504	556.00	13,344	577.00	13,848
18.20 Electric refrigerator, frost free .42 m3 (15 cu. ft.) capacity	24	No.	21.00	504	680.00	16,320	701.00	16,824
18.30 Range hood	24	No.	21.00	504	112.00	2,688	133.00	3,192
18.40 Coin operated dryer.	2	No.	24.00	48	647.00	1,294	671.00	1,342
18.50 Coin operated washer.	2	No.	24.00	48	852.00	1,704	876.00	1,752
SUBTOTAL - APPLIANCES	19.90	/m2 GFA		1,608		35,350		36,958

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
19. PLUMBING							
19.10 Complete plumbing including : -24 No. water closets -32 No. lavatory basins -24 No. baths (5') - 1 No. mop service basin - 1 No. laundry tub (The above Crane or equal) -24 No. kitchen sinks, compartment, stainless steel. - 1 No. water heater and storage tank, cap. 300 MBH - 1 No. domestic hot water recirculating pump and accessories. - rough-in, waste and vent - roof drains	24 apt.	1,000.00	24,000	2,316.00	55,584	3,316.00	79,584
SUBTOTAL - PLUMBING	42.86 /m2 GFA		24,000		55,584		79,584
20. HEATING							
20.10 Hot water circulation system (268 m total length) c/w radiators, 24 control valves, one centrifugal circulation pump, complete with all piping, 50 gallon expansion tank, hot water heating boiler and gas supply system.	24 apt.	570.00	13,680	1,310.00	31,440	1,880.00	45,120
SUBTOTAL - HEATING	24.30 /m2 GFA		13,680		31,440		45,120

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity	Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
21. VENTILATION								
21.10 Ventilation system, complete for 24-unit apartment building with all ductwork and fans.	24	apt.	100.00	2,400	311.00	7,464	411.00	9,864
SUBTOTAL - VENTILATION	5.31	/m2 GFA		2,400		7,464		9,864
22. FIRE PROTECTION								
22.10 Fire protection system, complete for 24-unit apartment building.	24	apt.	39.00	936	83.00	1,992	122.00	2,928
SUBTOTAL - FIRE PROTECTION	1.58	/m2 GFA		936		1,992		2,928
23. ELECTRICAL								
23.10 Complete electrical installation including fixture supply: fixtures, receptacles and connections for TV, phone and razor; vent fan, door-bell with two presses, 100 A service board and fire alarm system (includes for elect. fixtures.)	24	apt.	1,020.00	24,480	1,482.00	35,568	2,502.00	60,048
SUBTOTAL - ELECTRICAL	32.34	/m2 GFA		24,480		35,568		60,048

1989 ALBERTA HOUSE COST COMPARISON STUDY SEPTEMBER 1989

WALK - UP APARTMENT

GROSS FLOOR AREA : 1857 m2

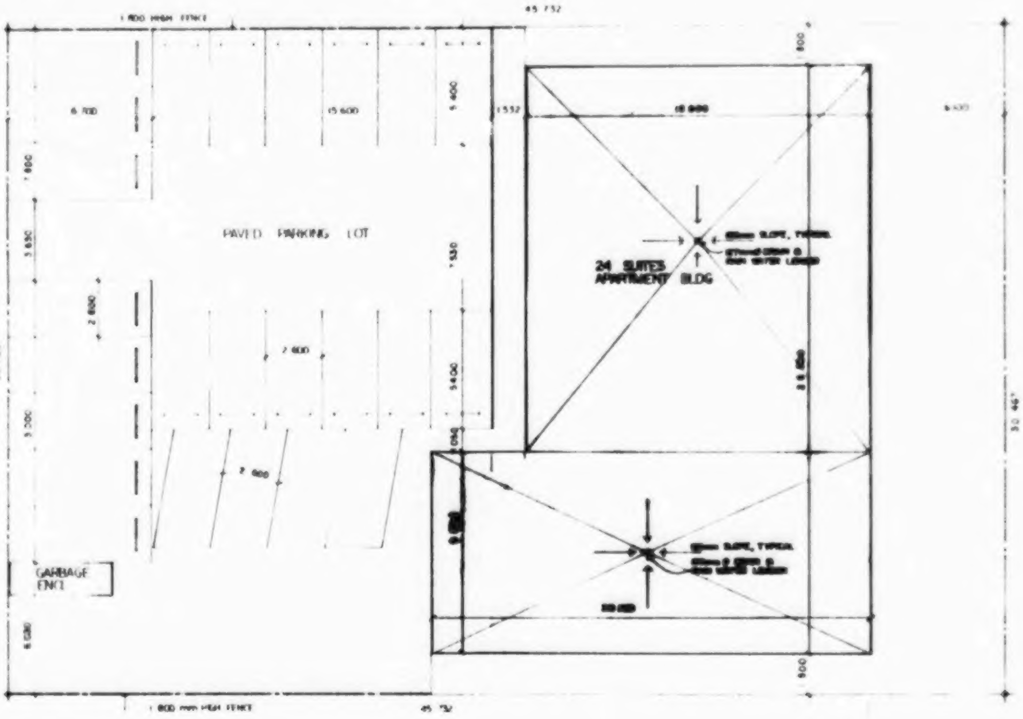
PEACE RIVER

CONSTRUCTION COST ESTIMATE

	Quantity Unit	Labour Unit Rate	Labour Item Cost	Mat/Equip Unit Rate	Mat/Equip Item Cost	Total Unit Rate	Total Cost
24. SITE OVERHEADS							
24.10 Site Overheads - setup - supervision - plant - site office - small tools - security - boarding, etc.	24 apt.	1,388.00	33,312	695.35	16,688	2,083.35	50,000
SUBTOTAL - SITE OVERHEADS	26.93 /m2 GFA		33,312		16,688		50,000
25. GENERAL CONTRACTOR'S OVERHEADS & PROFIT							
25.10 General Contractor's Overhead & Profit - permits - bonds - insurance - office overhead - profit	24 apt.	736.00	17,664	380.00	9,120	1,116.00	26,784
SUBTOTAL - GEN.CONTRACTOR'S OH.& PROFIT	14.42 /m2 GFA		17,664		9,120		26,784
TOTAL - PEACE RIVER	473.50 /m2 GFA		314,612		564,677		879,289

APPENDIX

Reduced Drawings : Walk-up Apartment



THE BUILDING IS REQUIRED TO FACE [illegible] STREET(S)

SPATIAL SEPARATION BETWEEN BUILDINGS

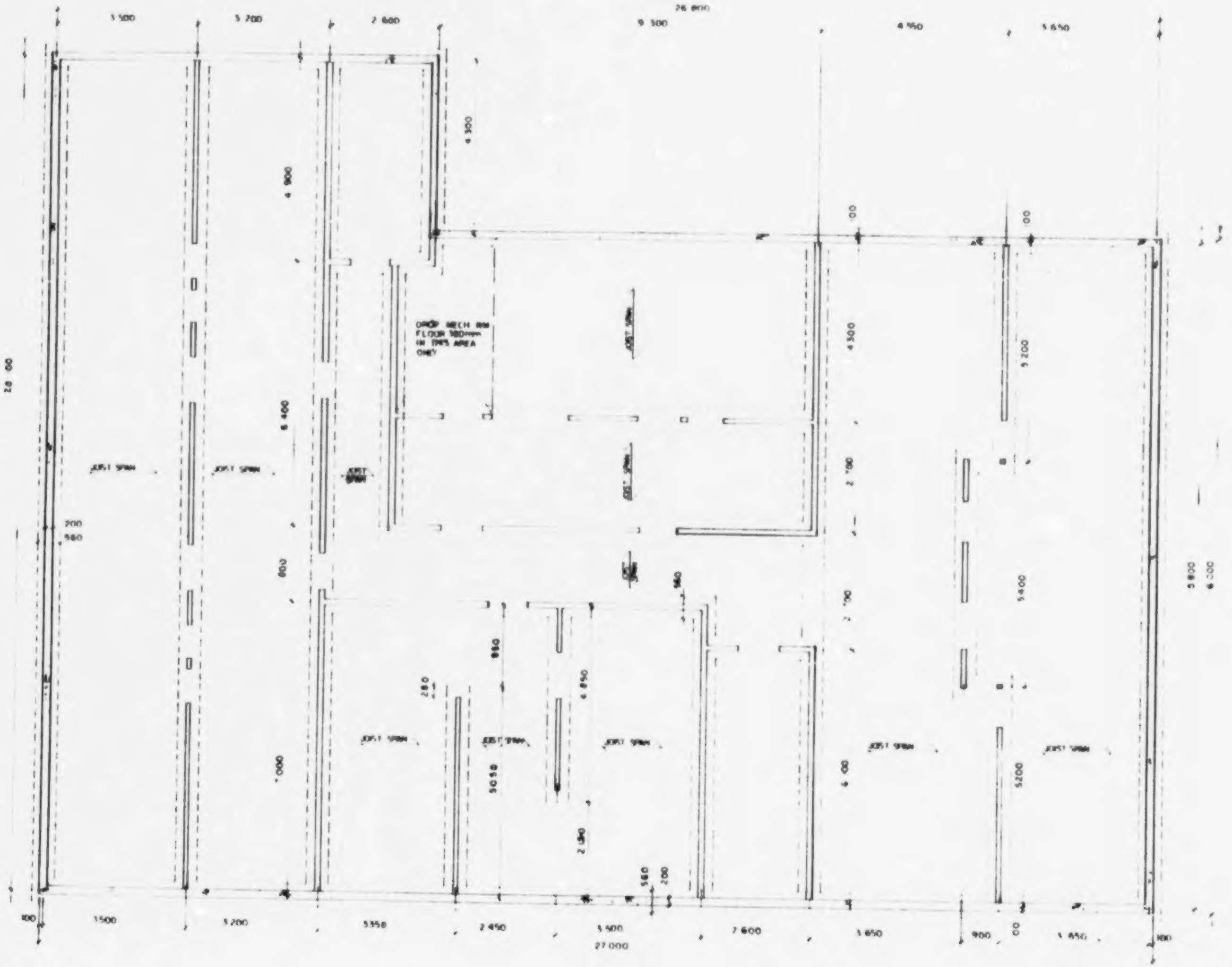
THE MAXIMUM PERCENTAGE OF UNPROTECTED OPENINGS IN AN EXPOSED BUILDING FACE SHALL CONFORM TO THE REQUIREMENTS [illegible] IN THE ALBERTA BUILDING CODE [illegible]

ONE SET OF EXAMINED DRAWINGS SHALL BE AVAILABLE CONTINUOUSLY AT THE [illegible] DURING WORKING HOURS FOR INSPECTION BY THE AUTHORITY HAVING JURISDICTION

ALBERTA HOUSE COST COMPARISON STUDY

SITE PLAN

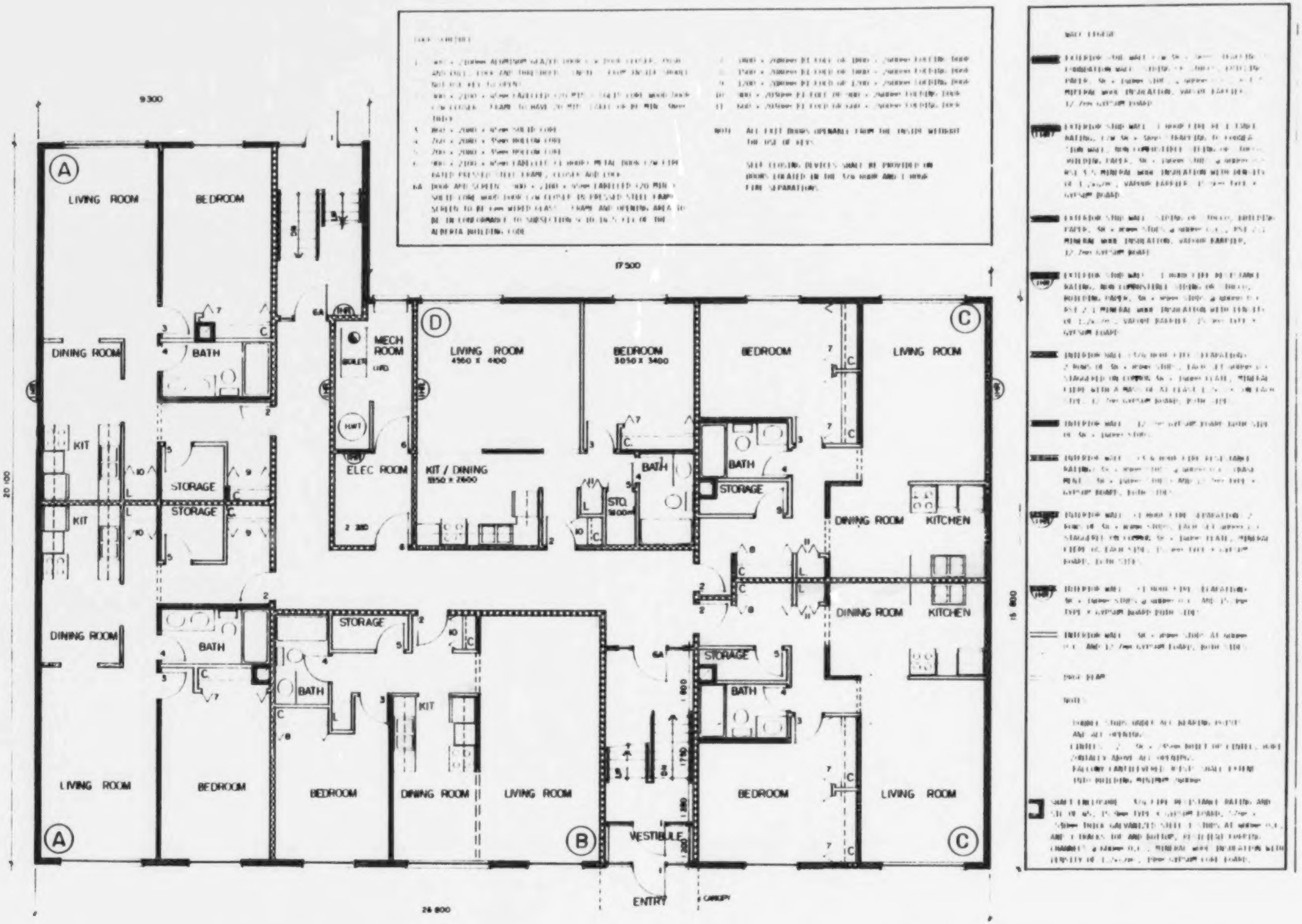
SCALE 1:100



ALBERTA HOUSE COST COMPARISON STUDY

FOUNDATION PLAN

SCALE 1 : 50



DOOR SCHEDULE

NOTE: ALL EXIT DOORS OPENABLE FROM THE INSIDE WITHOUT THE USE OF KEYS.

SELF CLOSING DEVICES SHALL BE PROVIDED ON DOORS LOCATED IN THE 3/4 HOUR AND 1 HOUR FIRE SEPARATIONS.

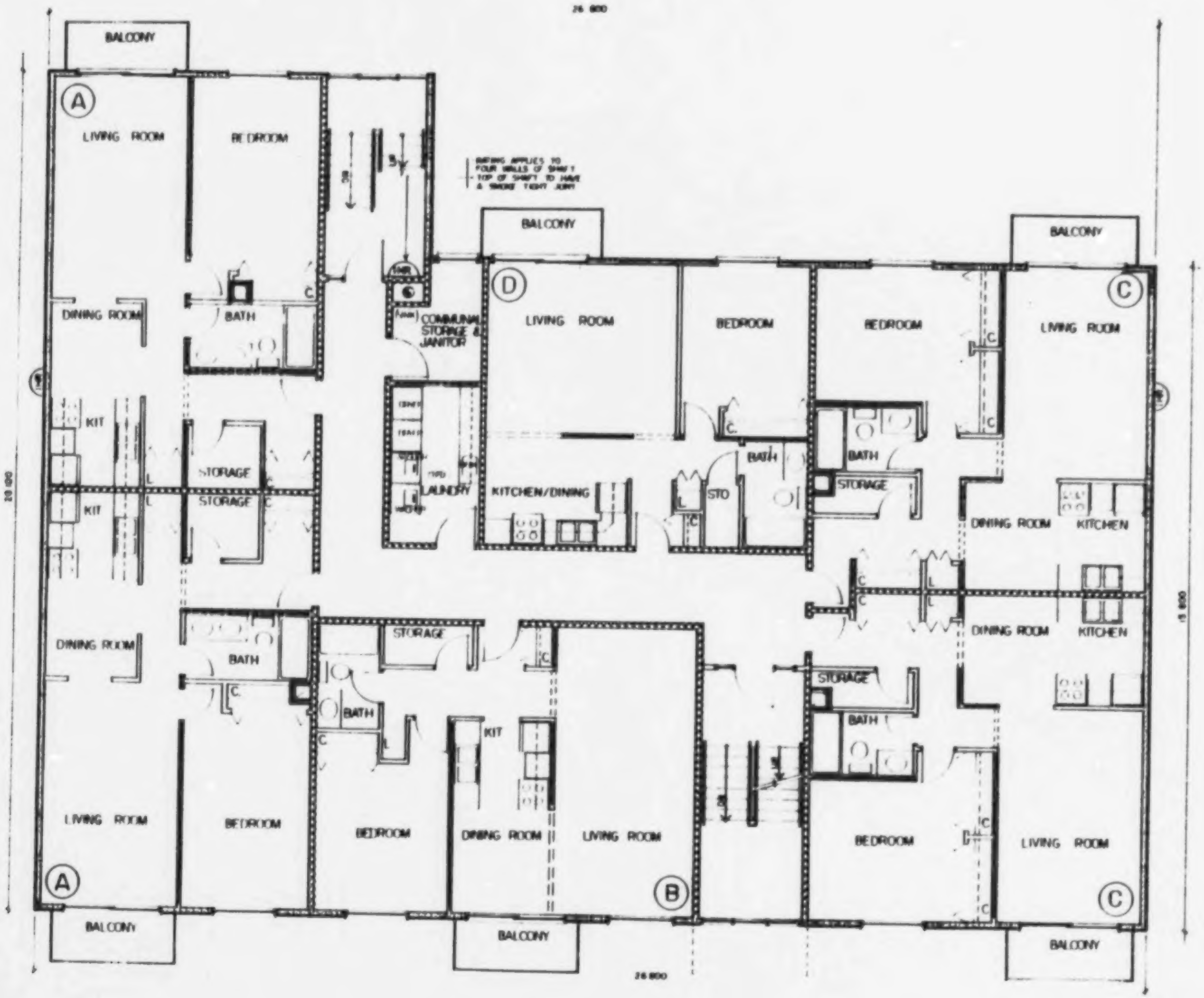
WALL LEGEND

ALBERTA HOUSE COST COMPARISON STUDY

BASEMENT FLOOR PLAN

SCALE 1:50

0 .5 1 2 3 4 5 6M



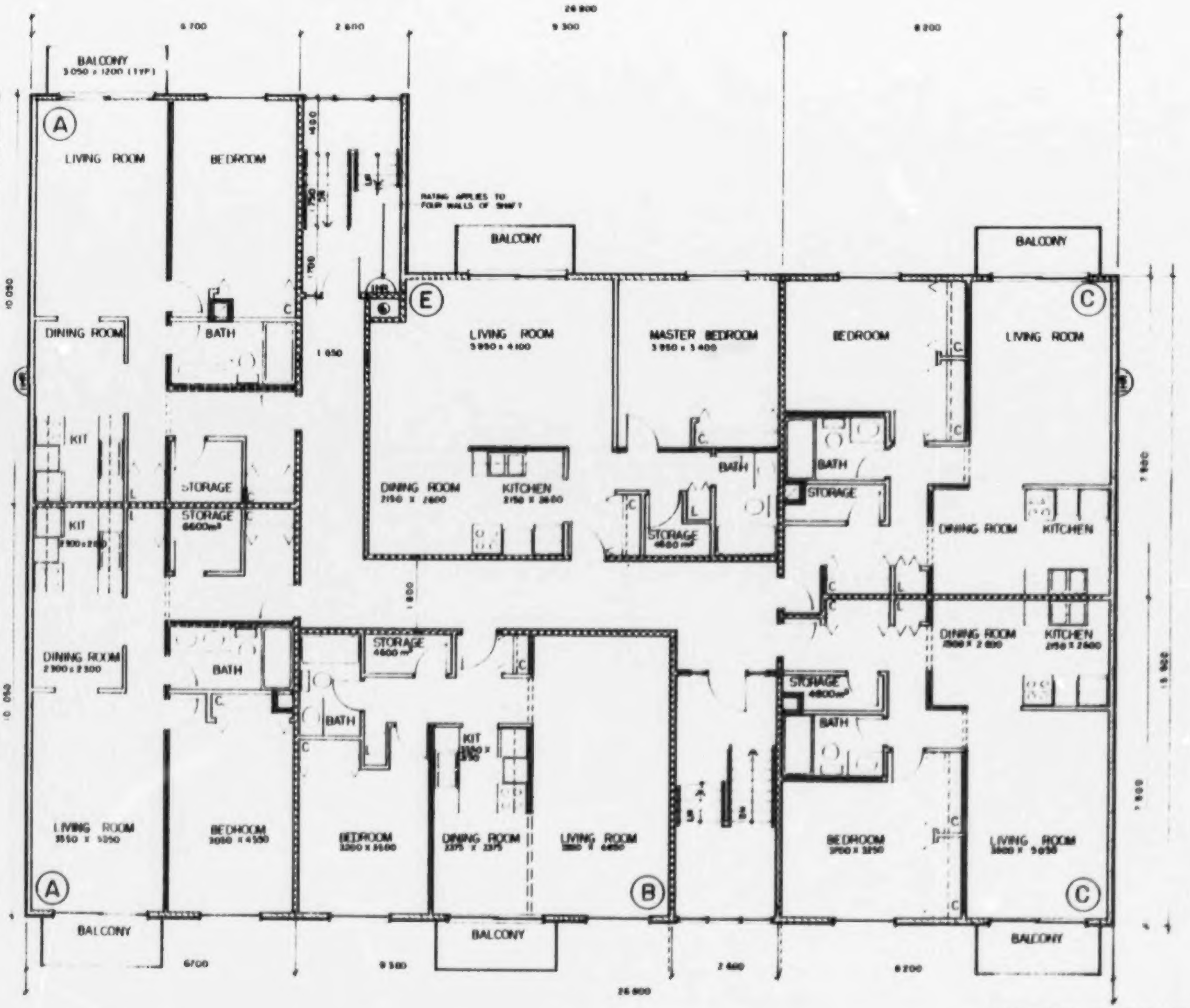
NOTE
SEE BASEMENT FLOOR PLAN
FOR TYPICAL DOOR & BI-FOLD
DOOR TYPES, SIZES & LOCATIONS

ALBERTA HOUSE COST COMPARISON STUDY

MAIN FLOOR PLAN

SCALE 1:50

0 0.5 1 2 3 4 5 6 m

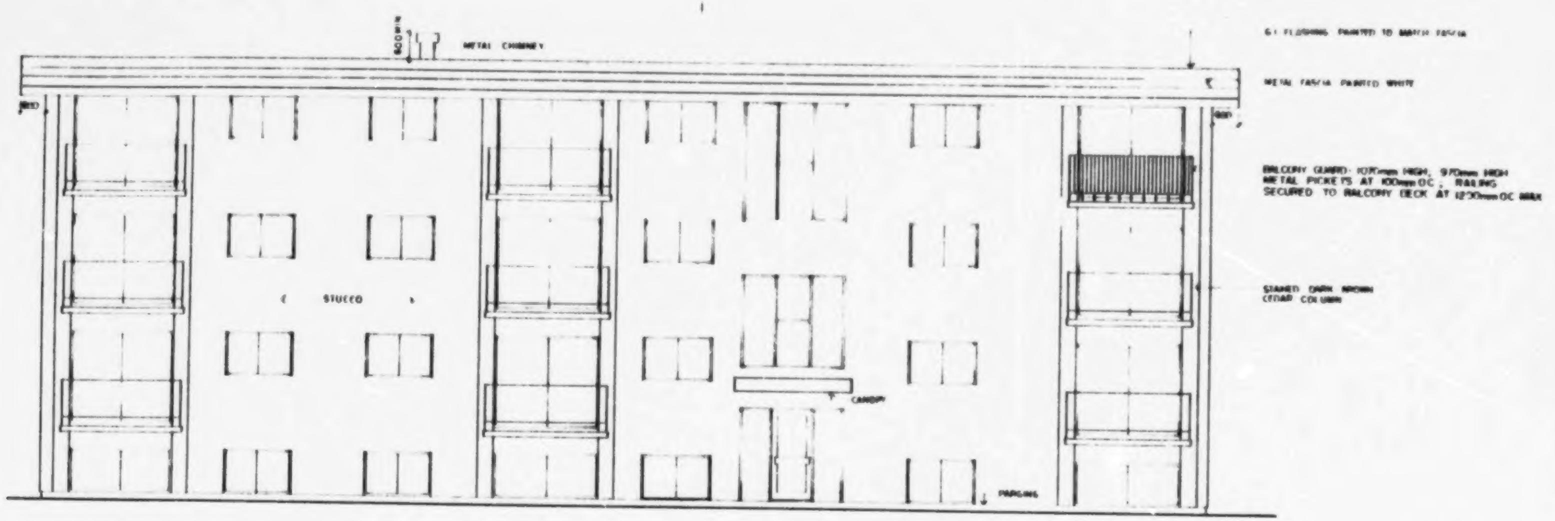


NOTE
SEE BASEMENT FLOOR PLAN
FOR TYPICAL DOOR, BI-FOLD
DOOR TYPES, SIZES & LOCATIONS

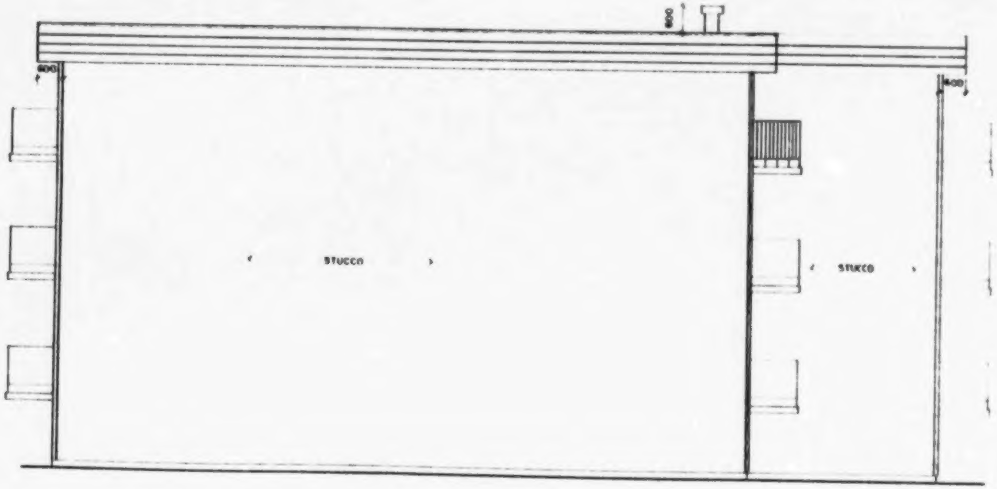
ALBERTA HOUSE COST COMPARISON STUDY

2ND & 3RD FLOOR PLAN

SCALE 1:50

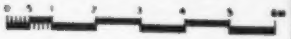

600
METAL CHIMNEY
G.I. FLASHING PAINTED TO MATCH FASCIA
METAL FASCIA PAINTED WHITE
600
600
BALCONY GUARD: 1070mm HIGH, 970mm HIGH
METAL PICKETS AT 100mm OC ; RAILING
SECURED TO BALCONY DECK AT 1200mm OC MAX
STAINED DARK BROWN
CEDAR COLUMN
STUCCO
CANOPY
PARGING

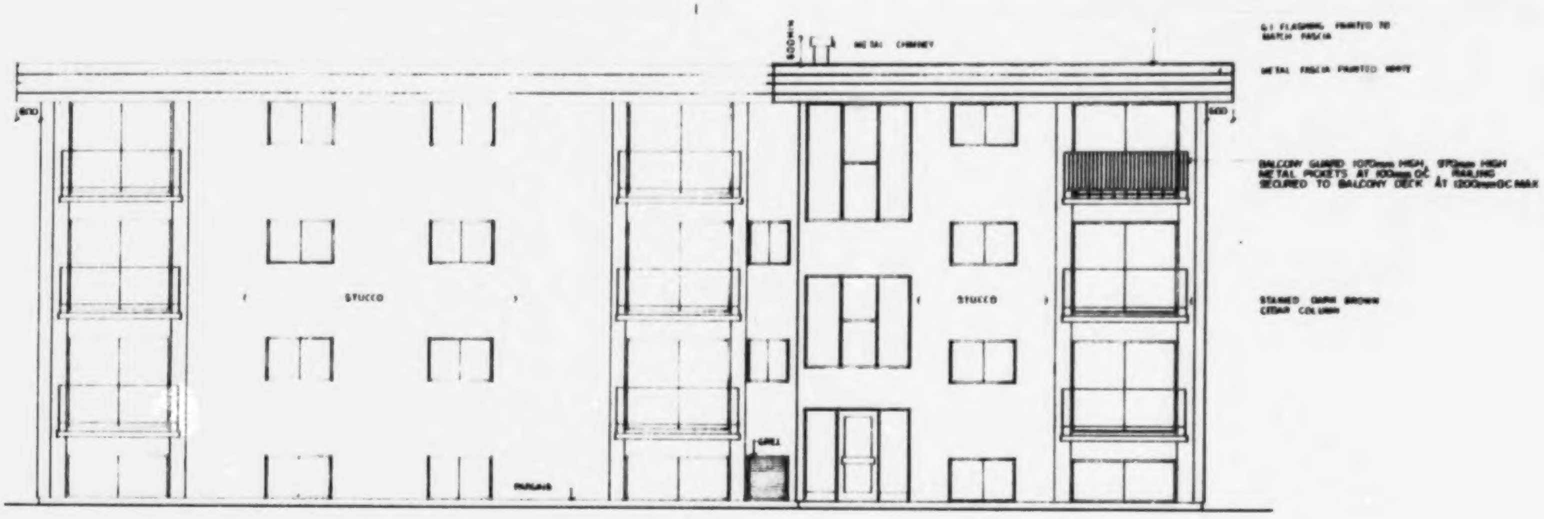
FRONT ELEVATION



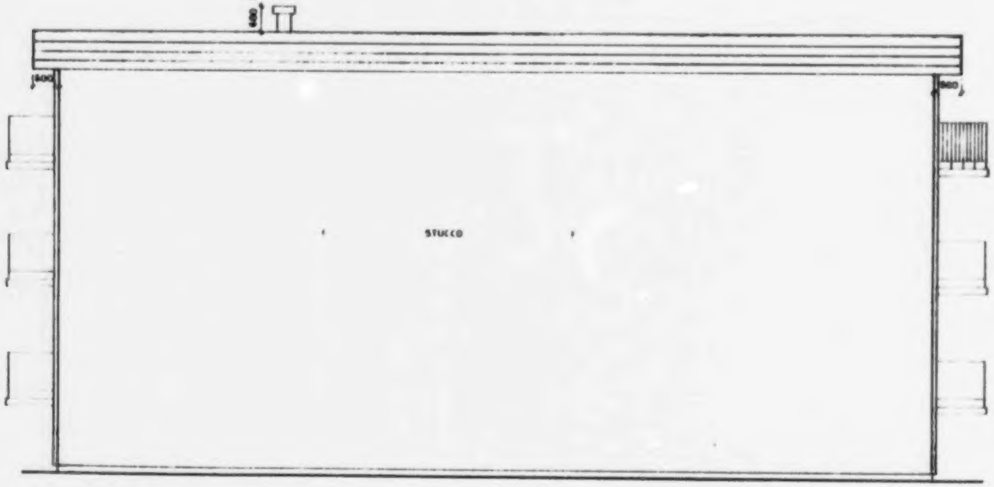
RIGHT ELEVATION

ALBERTA HOUSE COST COMPARISON STUDY
ELEVATIONS
SCALE 1:50




800 MIN
METAL CHIMNEY
600
600
STUCCO
STUCCO
PARGING
GRILL
G.I. FLASHING PAINTED TO MATCH FASCIA
METAL FASCIA PAINTED WHITE
BALCONY GUARD 1070mm HIGH, 970mm HIGH METAL PICKETS AT 100mm O.C. RAILING SECURED TO BALCONY DECK AT 1200mm O.C. MAX
STAINED DARK BROWN CEDAR COLUMN

REAR ELEVATION



LEFT ELEVATION

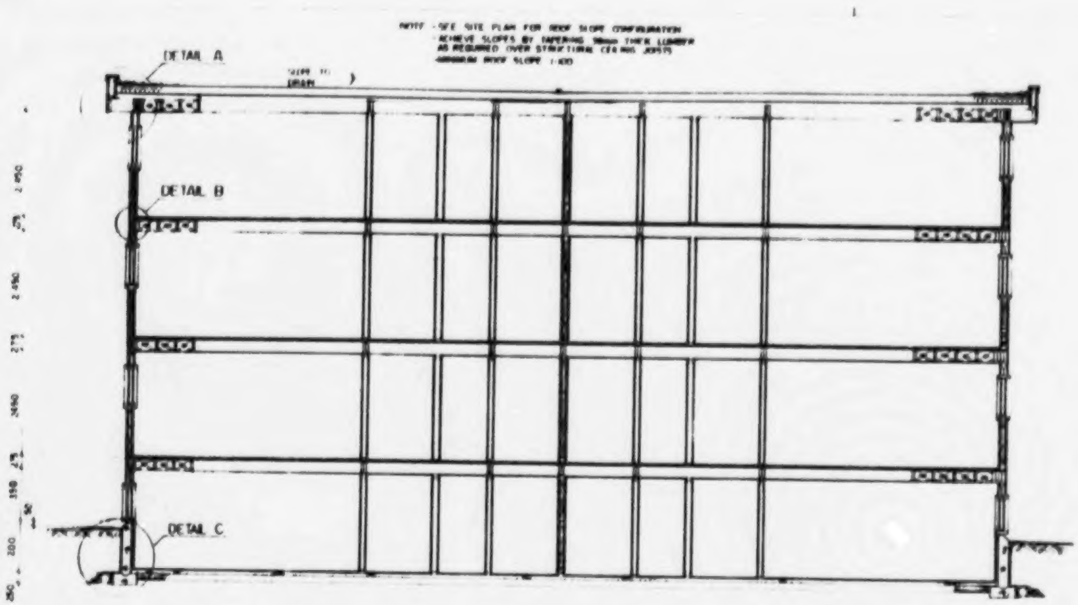
DRAWINGS MUST BE SIGNED AND SEALED BY A
PROFESSIONAL ENGINEER OR ARCHITECT REGISTERED
IN THE PROVINCE OF ALBERTA

ALBERTA HOUSE COST COMPARISON STUDY

ELEVATIONS

SCALE 1:50

0 .5 1 2 3 4 5 6m

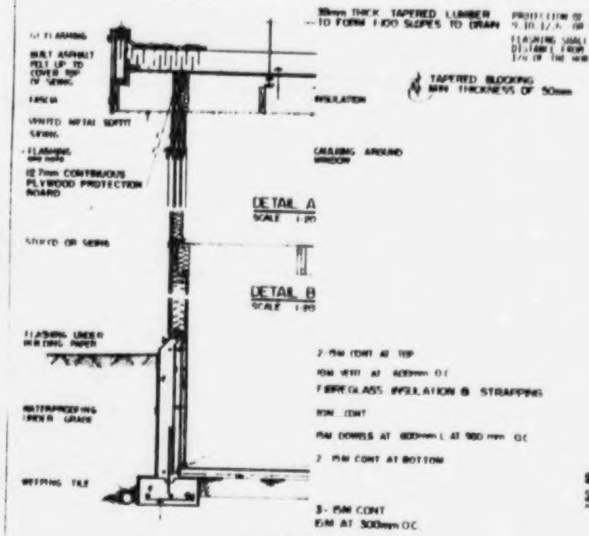

NOTE - SEE SITE PLAN FOR ROOF SLOPE CONFIGURATION
ACHIEVE SLOPES BY TAPERING 38mm THICK LUMBER AS REQUIRED OVER STRUCTURAL CEILING JOISTS
MINIMUM ROOF SLOPE 1:100
DETAIL A
DETAIL B
DETAIL C
SLOPE TO DRAIN
250
200
50
350
275
2 490
275
2 490
275
2 490

SECTION
SCALE 1:50

38mm THICK TAPERED LUMBER TO FORM 1:100 SLOPES TO DRAIN

PROTECTION OF SOFFITS SHALL BE PROVIDED AS STATED IN ARTICLES 9.10.12.6. OR 9.10.12.7.

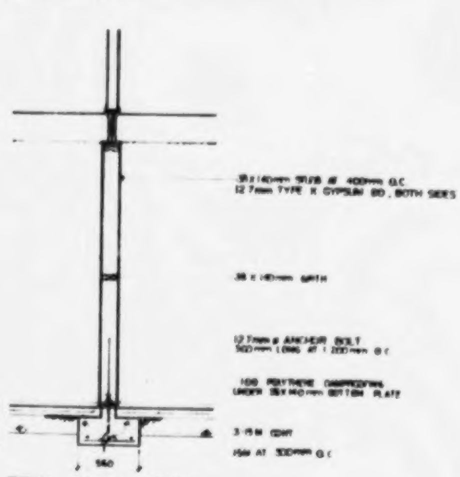
FLASHING SHALL BE APPLIED OVER ALL EXTERIOR OPENINGS WHERE THE VERTICAL DISTANCE FROM THE BOTTOM OF THE EAVE TO THE TOP OF THE TRIM IS MORE THAN 1/4 OF THE HORIZONTAL OVERHANG OF THE EAVE


TAPERED BLOCKING MIN THICKNESS OF 50mm
FLASHING
BUILT ASPHALT FELT UP TO COVER TOP OF SIDING
FASCIA
VENTED METAL SOFFIT
SIDING
FLASHING
12.7mm CONTINUOUS PLYWOOD PROTECTION BOARD
INSULATION
CAULKING AROUND WINDOW
STUCCO OR SIDING
FLASHING UNDER WRITING PAPER
WATERPROOFING UNDER GRADE
WEEPING TILE
2-15M CONT AT TOP
15M VERT AT 400mm O.C
FIBREGLASS INSULATION & STRAPPING
15M CONT
15M DOWELS AT 600mm L AT 900 mm O.C
2-15M CONT AT BOTTOM
3-15M CONT
15M AT 300mm O.C

DETAIL A
SCALE 1:20

DETAIL B
SCALE 1:20

DETAIL C
SCALE 1:20


38 x 140mm STUDS @ 400mm O.C
12.7mm TYPE X GYPSUM BD, BOTH SIDES
38 x 140mm WIDTH
12.7mm ø ANCHOR BOLT 300mm LONG AT 1 200mm O.C
100 POLYTHENE DAMPPROOFING UNDER 38 x 140mm BOTTOM PLATE
3-15M CONT
15M AT 300mm O.C
250
80
560

TYPICAL INTERIOR FOOTING
SCALE 1:20

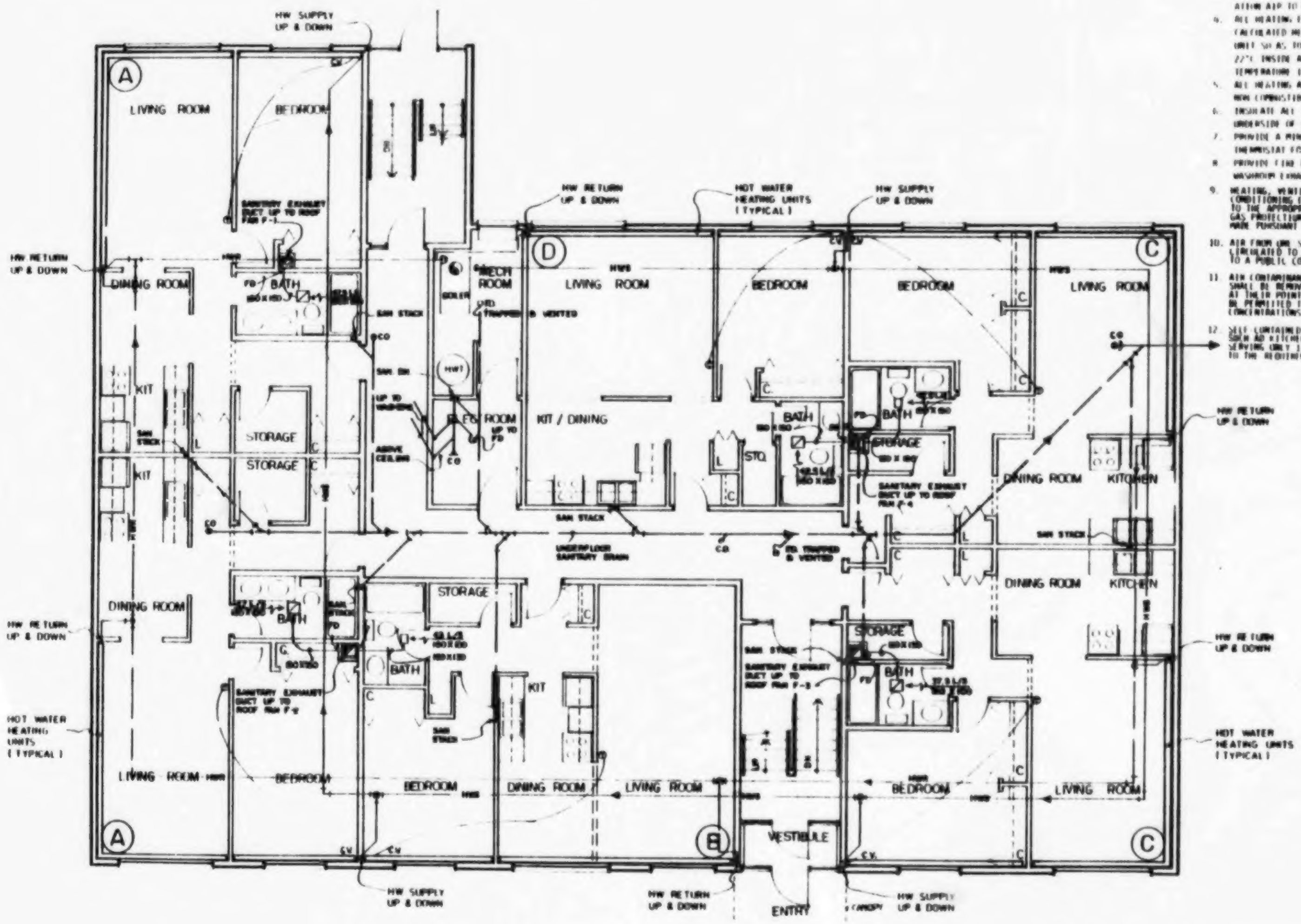
[illegible]

NOTE
ALTERNATE INSULATION [illegible]

ALBERTA HOUSE COST COMPARISON STUDY

SECTION & DETAILS

SCALES : AS SHOWN



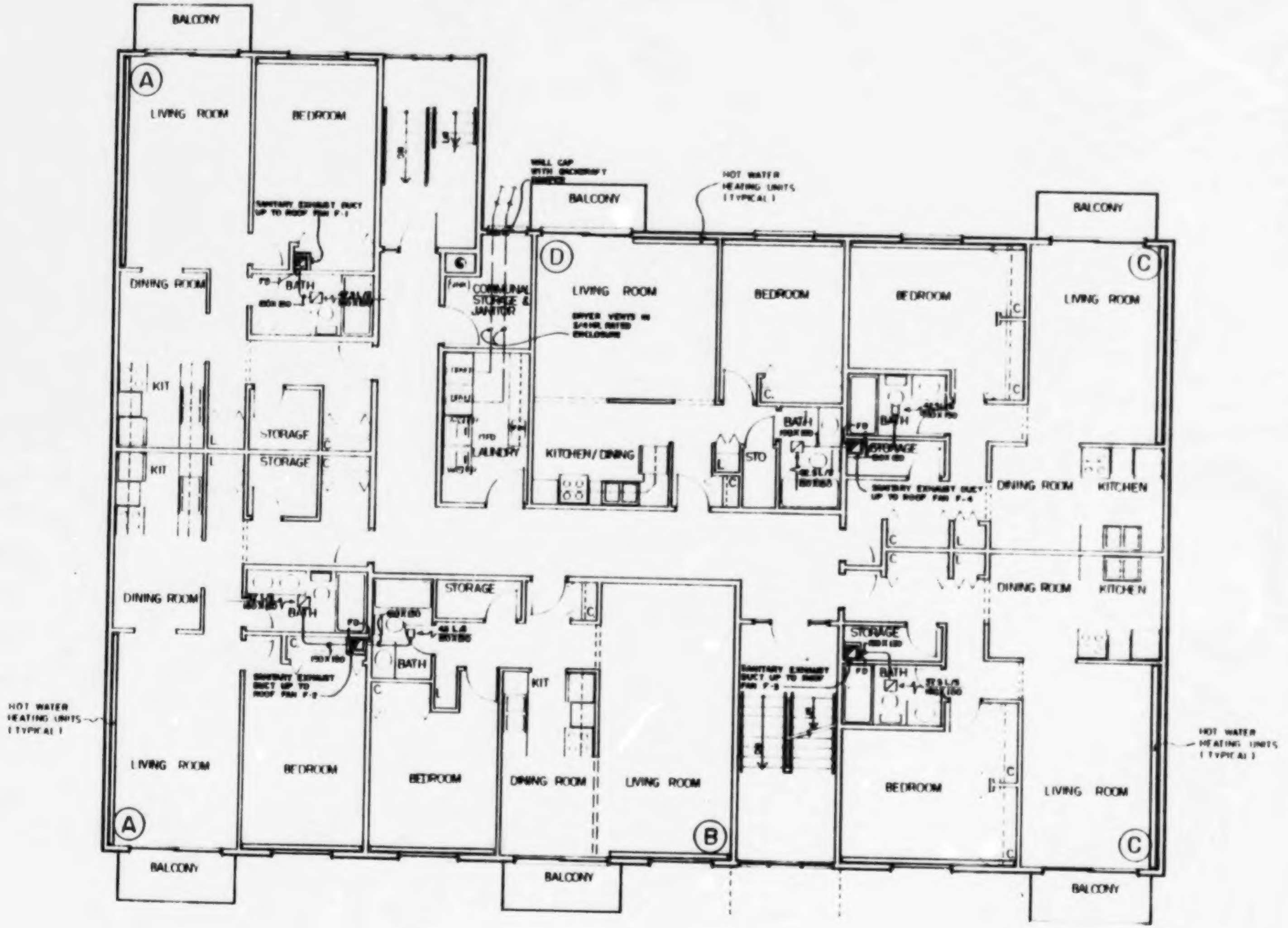
MECHANICAL NOTES

1. GAS FIRED HOT WATER HEATING BOILER SHALL BE INSTALLED IN ACCORDANCE WITH "THE GAS PROTECTION ACT AND REGULATIONS MADE PURSUANT TO THE ACT"
2. PROVIDE TYPE "B" CHIMNEY FOR BOILER.
3. PROVIDE ADEQUATE COMBUSTION AND VENTILATION AIR TO MECHANICAL ROOM
4. ALL HEATING EQUIPMENT SHALL BE SIZED ON A CALCULATED HEAT LOSS FROM THE DWELLING UNIT SO AS TO MAINTAIN A TEMPERATURE OF 22°C INSIDE AT MAIN FLOOR WHEN OUTSIDE TEMPERATURE IS -35°C.
5. ALL HEATING AND PLUMBING PIPING SHALL BE NON COMBUSTIBLE
6. INSULATE ALL SANITARY EXHAUST DUCTS FROM UNDERSIDE OF ROOF TO 3RD FLOOR (25mm)
7. PROVIDE A MINIMUM OF ONE WALL MOUNTED THERMOSTAT FOR EACH SUITE.
8. PROVIDE FIRE FLAPS ON EACH 150 x 150mm WASHROOM EXHAUST AIR GRILLE
9. HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT SHALL CONFORM TO THE APPROPRIATE REQUIREMENTS OF THE GAS PROTECTION ACT AND REGULATIONS MADE PURSUANT TO THAT ACT.
10. AIR FROM ONE SUITE SHALL NOT BE CIRCULATED TO ANY OTHER SUITE NOR TO A PUBLIC CORRIDOR.
11. AIR CONTAMINANTS RELEASED WITHIN BUILDINGS SHALL BE REMOVED INSOFAR AS POSSIBLE AT THEIR POINTS OF ORIGIN AND SHALL NOT BE PERMITTED TO ACCUMULATE IN UNSAFE CONCENTRATIONS
12. SELF CONTAINED MECHANICAL VENTILATION SYSTEMS, SUCH AS KITCHEN AND BATHROOM EXHAUST FANS, SERVING ONLY 1 DWELLING UNIT SHALL CONFORM TO THE REQUIREMENTS OF SECTION 9.33

CV CONTROL VALVE
FD FIRE DAMPER

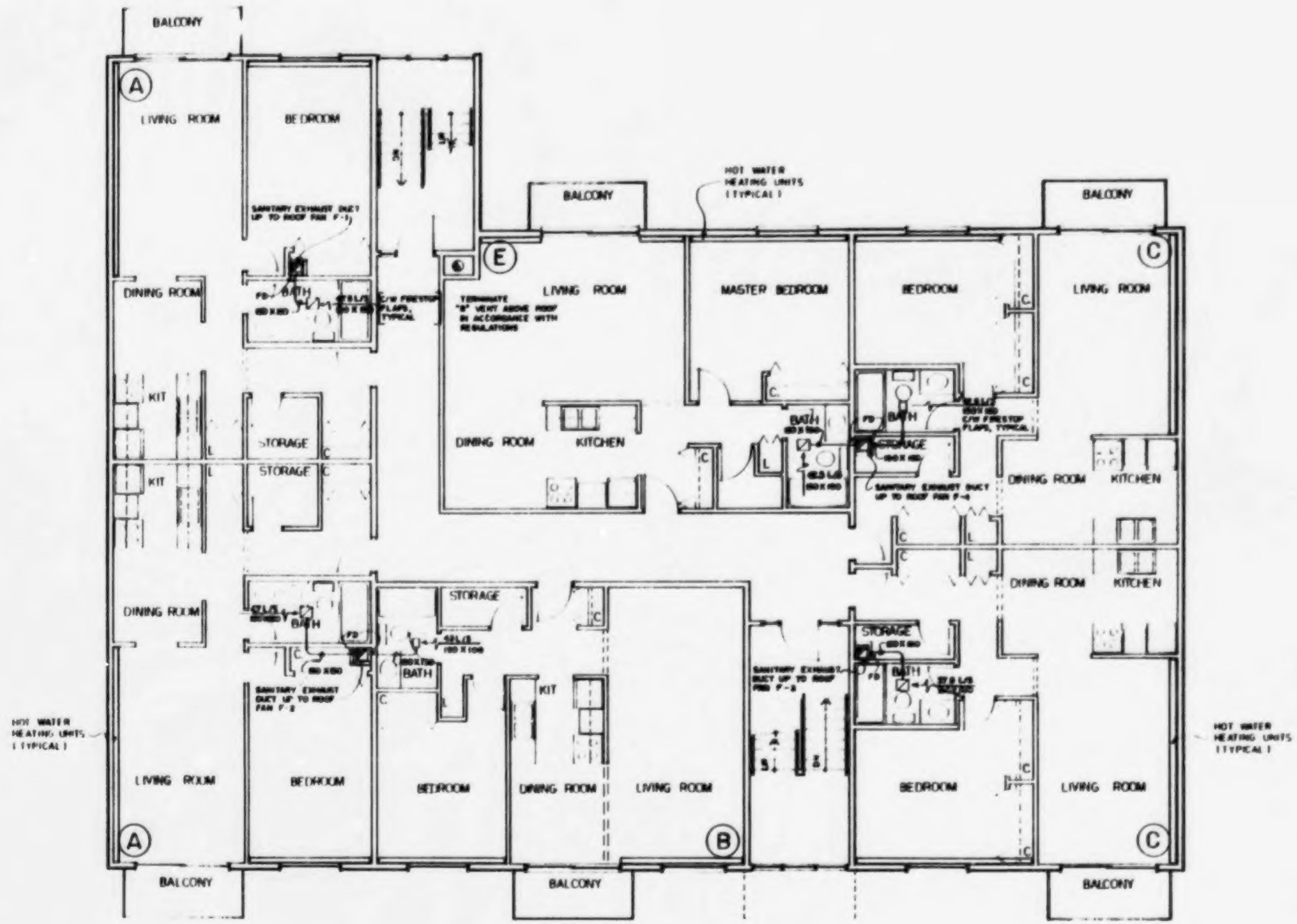
ALBERTA HOUSE COST COMPARISON STUDY

BASEMENT FLOOR PLAN
MECHANICAL LAYOUT
SCALE 1:50


BALCONY
A
LIVING ROOM
BEDROOM
SANITARY EXHAUST DUCT UP TO ROOF FAN F-1
DINING ROOM
BATH
FD
KIT
STORAGE
STORAGE
KIT
WALL CAP WITH BACKDRAFT DAMPER
HOT WATER HEATING UNITS (TYPICAL)
BALCONY
D
LIVING ROOM
COMMUNAL STORAGE & JANITOR
DRYER VENTS IN 3/4 HR. RATED ENCLOSURE
LAUNDRY
KITCHEN/DINING
BEDROOM
C
BATH
STO
BEDROOM
C
BATH
STORAGE
SANITARY EXHAUST DUCT UP TO ROOF FAN F-4
BALCONY
C
LIVING ROOM
DINING ROOM
KITCHEN
DINING ROOM
KITCHEN
DINING ROOM
BATH
STORAGE
BATH
SANITARY EXHAUST DUCT UP TO ROOF FAN F-2
HOT WATER HEATING UNITS (TYPICAL)
LIVING ROOM
BEDROOM
BEDROOM
KIT
DINING ROOM
LIVING ROOM
B
SANITARY EXHAUST DUCT UP TO ROOF FAN F-3
STORAGE
BATH
BEDROOM
LIVING ROOM
C
HOT WATER HEATING UNITS (TYPICAL)
A
BALCONY
BALCONY
BALCONY

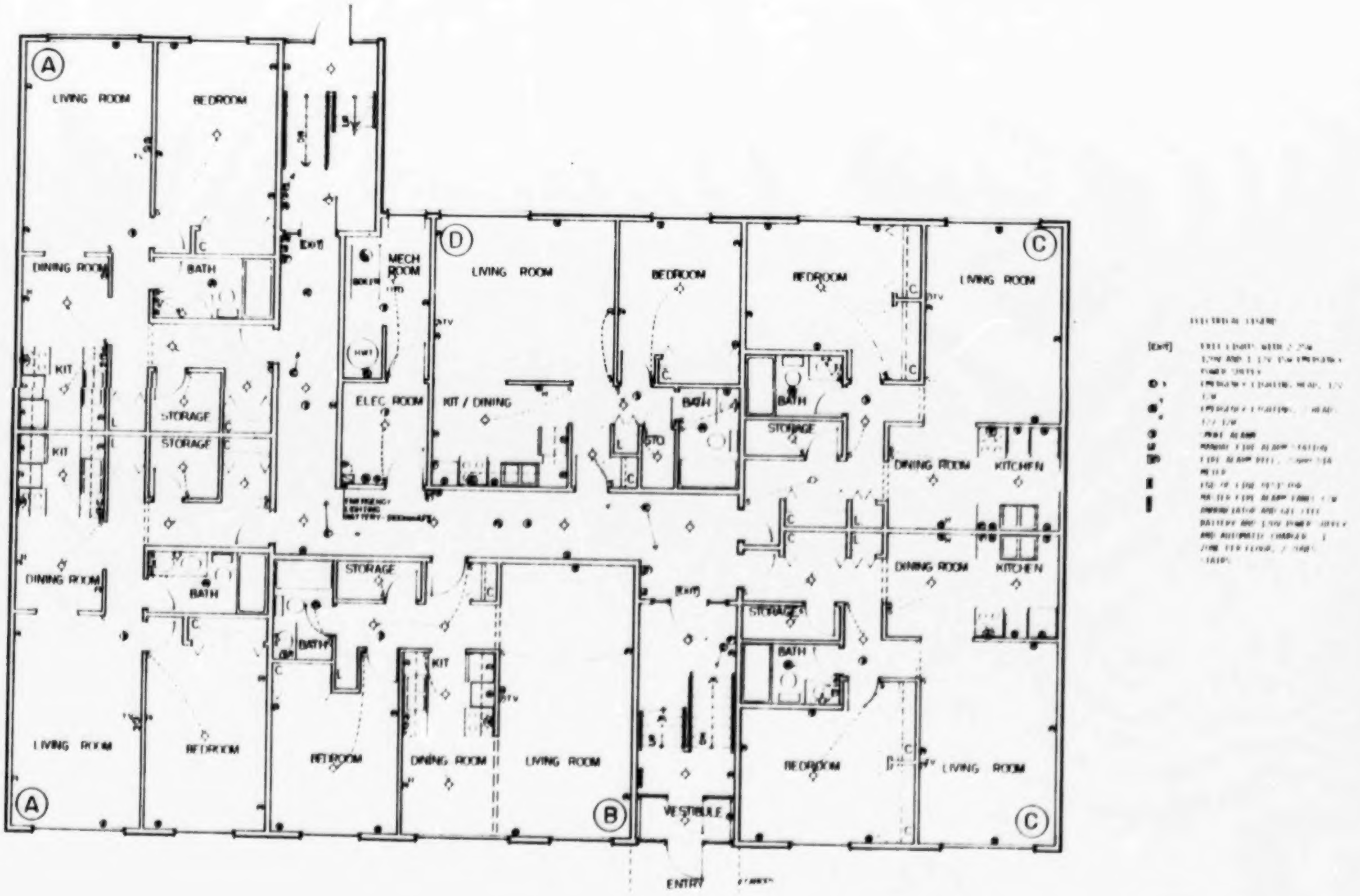
ALBERTA HOUSE COST COMPARISON STUDY

MAIN FLOOR PLAN
MECHANICAL LAYOUT
SCALE 1:50


BALCONY
A
LIVING ROOM
BEDROOM
SANITARY EXHAUST DUCT UP TO ROOF FAN F-1
DINING ROOM
FD
BATH
C/W FIRESTOP FLAPS, TYPICAL
KIT
STORAGE
E
TERMINATE "B" VENT ABOVE ROOF IN ACCORDANCE WITH REGULATIONS
LIVING ROOM
DINING ROOM
KITCHEN
HOT WATER HEATING UNITS (TYPICAL)
MASTER BEDROOM
BATH
STORAGE
SANITARY EXHAUST DUCT UP TO ROOF FAN F-4
C/W FIRESTOP FLAPS, TYPICAL
C
LIVING ROOM
DINING ROOM
KITCHEN
SANITARY EXHAUST DUCT UP TO ROOF FAN F-2
SANITARY EXHAUST DUCT UP TO ROOF FAN F-3
KIT
B
HOT WATER HEATING UNITS (TYPICAL)
HOT WATER HEATING UNITS (TYPICAL)
0 .5 1 2 3 4 5 6m

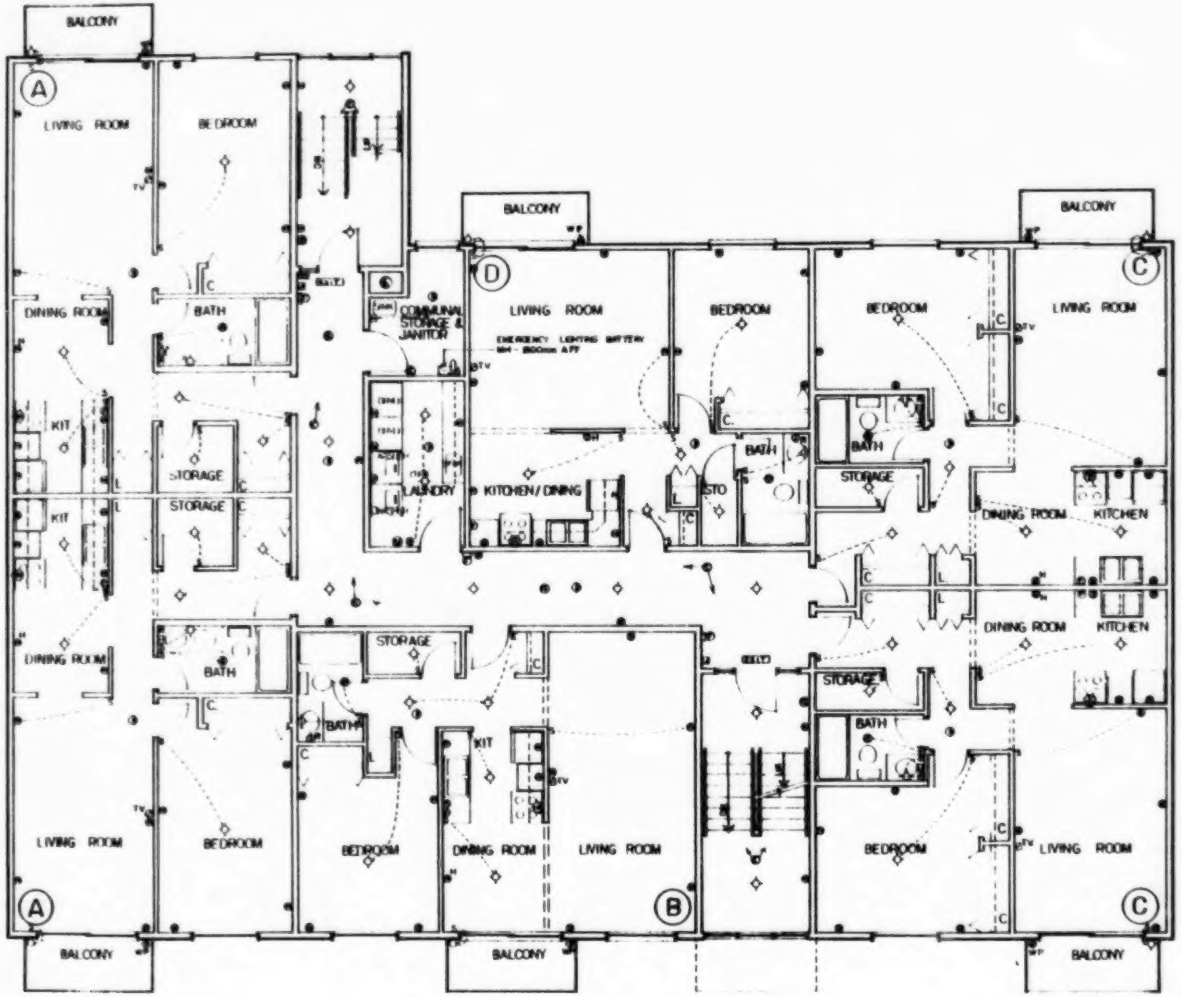
ALBERTA HOUSE COST COMPARISON STUDY

2ND & 3RD FLOOR PLAN
MECHANICAL LAYOUT
SCALE 1:50



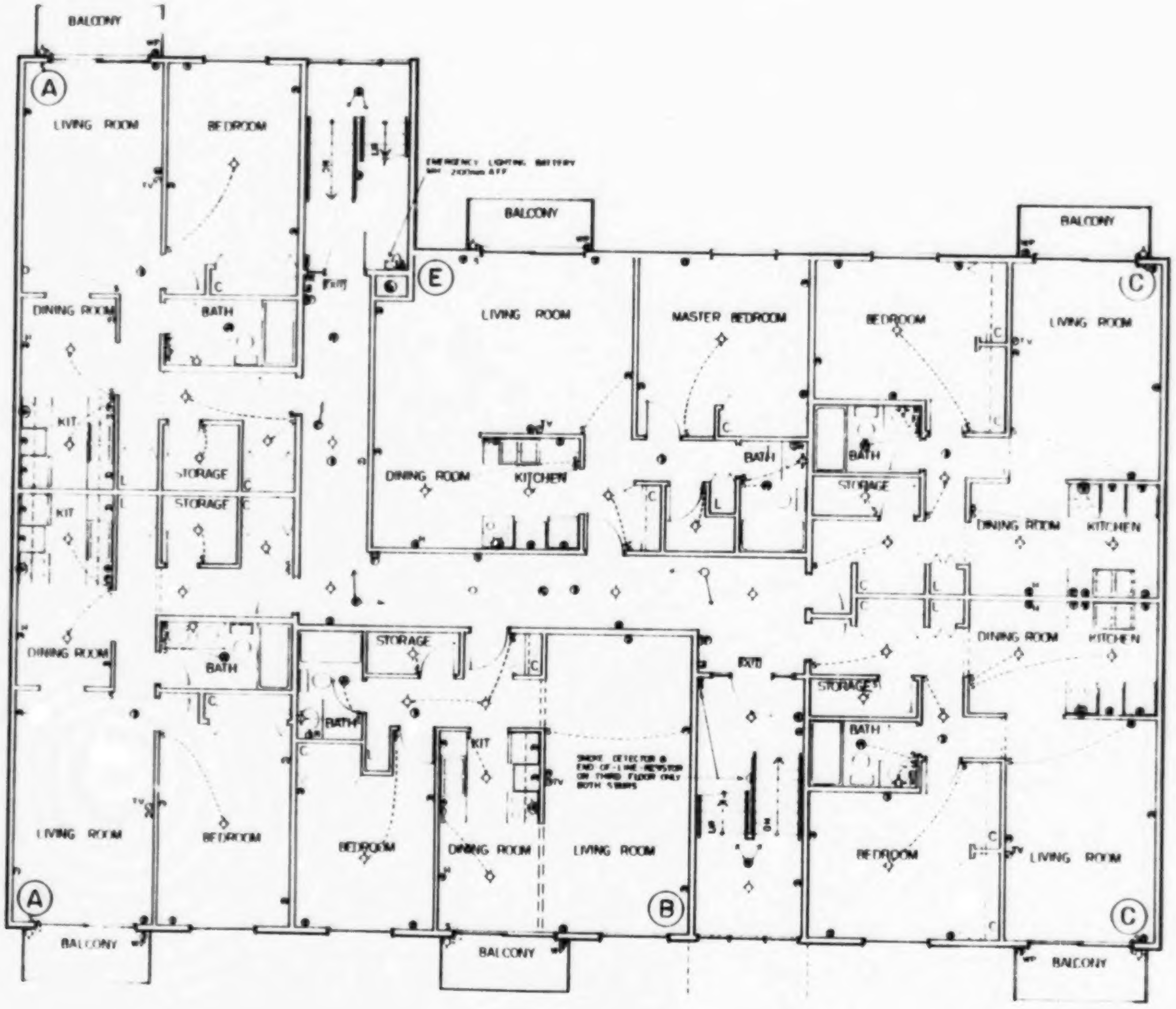
ALBERTA HOUSE COST COMPARISON STUDY

BASEMENT FLOOR PLAN
ELECTRICAL LAYOUT
SCALE 1:50



ALBERTA HOUSE COST COMPARISON STUDY

MAIN FLOOR PLAN
ELECTRICAL LAYOUT
SCALE 1:50



ALBERTA HOUSE COST COMPARISON STUDY

2ND & 3RD FLOOR PLAN
ELECTRICAL LAYOUT
SCALE 1 : 50